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REVIEW OF ARMS CONTROL AND DISARMAMENT ACTIVITIES 99th CONGRESS, 1st SESSION

HEARINGS

BEFORE THE

SPECIAL PANEL ON ARMS CONTROL AND DISARMAMENT

OF THE

PROCUREMENT AND MILITARY NUCLEAR SYSTEMS SUBCOMMITTEE

OF THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES

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MUTUAL AND BALANCED FORCE REDUCTIONS [MBFR] NEGOTIATIONS AND THE NUCLEAR NONPROLIFERATION TREATY [NPT]

HOUSE OF REPRESENTATIVES, COMMITTEE ON ARMED SERVICES, SPECIAL PANEL ON ARMS CONTROL AND DISARMAMENT OF THE PROCUREMENT AND MILITARY NUCLEAR SYSTEMS SUBCOMMITTEE,

Washington, DC, Tuesday, September 10, 1985.

The special panel met, pursuant to call, at 10:15 a.m., in room 2212, Rayburn House Office Building, Hon. Beverly Byron (chairman of the special panel) presiding.

OPENING STATEMENT OF HON. BEVERLY B. BYRON, A REPRESENTATIVE FROM MARYLAND, CHAIRMAN, SPECIAL PANEL ON ARMS CONTROL AND DISARMAMENT OF THE PROCUREMENT AND MILITARY NUCLEAR SYSTEMS SUBCOMMITTEE

Mrs. BYRON. First of all, I would like to say that the Committee on Armed Services has an important oversight responsibility in the areas of arms control and disarmament. Since the Subcommittee on Procurement and Military Nuclear Systems is responsible for authorizing appropriations for weapons of all types and the operation of the Department of Energy national security programs, arms control matters have been assigned to that subcommittee.

As has been the practice in prior years, Chairman Stratton has reappointed this special panel to assist the subcommittee in its arms control oversight functions.

The jurisdiction of the Armed Services Committee over arms control matters is based on the obvious fact that our military force structure cannot be separated from our national security policy; nor can our national security policy be separated from our foreign policy. It follows that our arms control policy must support, and not be in conflict with or unreasonably restrict the achievement of our military force structure requirements, including force modernization, readiness and mobility. Where conflicts have occurred in the past, arms control alternatives have been foreclosed and existing arms control treaties have gone down the drain.

I hope that the series of hearings that begin today will serve several purposes:

First, to update our information from U.S. negotiators on the several sets of negotiations that have taken place in Geneva and in Vienna earlier this year. Of particular interest will be progress reports on the nuclear and space arms control and chemical weapons ban negotiations in Geneva. We will also receive a briefing on the

Nuclear Nonproliferation Treaty [NPT] 5-year review conference and a progress report on the Mutual and Balanced Force Reductions [MBFR] negotiations in Vienna.

Second, I would hope that the witnesses from the U.S. Arms Control and Disarmament Agency [ACDA] and from the State Department will address several issues and help us to put them into context. These issues include reported Soviet offers to reduce strategic arms; to abide by an unnegotiated moratorium on nuclear testing; to abide by a similar moratorium on ASAT testing and research; and other Soviet "offers." Although these issues have been raised by the Soviets in the U.S. news media, it is not clear that they are included in various Soviet negotiating positions.

Third, it appears that the notion of a comprehensive test ban [CTB] possibly achieved through negotiations, through an informal moratorium, or through proposed legislated restrictions on defense expenditures, is again becoming fashionable. The prospect of a CTB, its probable effects on our deterrent forces and their modernization, and the risks involved have been raised by H.J. Res. 3 and H.R. 3100. These hearings should provide the panel with a better understanding of the issues involved in those measures.

Our first witness today will be Ambassador Robert Blackwill who is the U.S. Representative to the Mutual and Balanced Force Reductions [MBFR] Negotiations in Vienna.

This afternoon we will hear from Ambassador Donald Lowitz who is the U.S. Ambassador to the 40-nation U.N. Conference on Disarmament in Geneva. In addition, we will receive an intelligence briefing from Dr. Robert Barker of the Bureau of Verification and Intelligence in the U.S. Arms Control and Disarmament Agency.

I want to welcome Ambassador Blackwill on behalf of the panel. The panel will proceed in open session until such time as it may be necessary to go into closed session for national security reasons.

Ambassador, once again I apologize for starting the hearings a little late, but I think we are ready to go now.

With that, I would like to ask Mrs. Holt if she has a statement.

STATEMENT OF HON. MARJORIE S. HOLT, A REPRESENTATIVE FROM MARYLAND, RANKING MINORITY MEMBER, SPECIAL PANEL ON ARMS CONTROL AND DISARMAMENT OF THE PROCUREMENT AND MILITARY NUCLEAR SYSTEMS SUBCOMMITTEE

Mrs. HOLT. Thank you, Madam Chairman.

I apologize for being late myself. I want to join you in welcoming our distinguished witnesses today, and I certainly look forward to the briefings that would be offered during this week and next week.

I believe that there is no doubt that every member of this panel, and perhaps everyone in this room, firmly believes in the basic purposes of arms control as those purposes have been so clearly set out in the Arms Control and Disarmament Act of 1961. I am concerned, however, that the historical purposes of arms control have been taking a back seat to an undefined entity called the "arms control process."

The Arms Control and Disarmament Act clearly recognizes that arms control has its limitations; that its purpose is to enhance national security; and that arms control cannot endure where one party can take advantage of the military weaknesses of other parties.

I am really concerned that some of those who are enamored with the "arms control process"—as opposed to arms control—are driving down a strange and dark road at a speed that exceeds the range of their headlights. I refer to those who demand immediate negotiations on a number of vital military issues; who demand agreements apparently for the sake of agreements, and there are those who would enforce their arms control demands through legislation freezing or destroying vital defense activities. In my opinion, those who would pursue this type of "arms control process," are not seeking true arms control. The result will be something quite different.

Our negotiators are engaged in what promises to be very long and complicated negotiations on a variety of subjects vital to our national security. I believe that they deserve the support of this panel, of the committee, and of the Congress and that we should give them a chance to arrive at the best agreements possible. The strong support of Congress will strengthen their hands in these difficult negotiations and will result in agreements in the best interests of the United States, if agreements are to be reached at all.

Thank you for the opportunity to express my concerns.

Mrs. BYRON. Thank you.

Mr. Ambassador, you may proceed.

STATEMENT OF AMBASSADOR ROBERT BLACKWILL, U.S. REPRESENTATIVE TO THE MUTUAL AND BALANCED FORCE REDUCTIONS [MBFR] NEGOTIATIONS

Ambassador BLACKWILL. I understand that I am the first of a number of administration officials who will be speaking with you about arms control matters this week and next, and I just want to say that I am sure I speak for all of them in expressing our desire to make this a fruitful exchange of views profiting both ourselves and the panel.

I would now like to read my statement.

Mrs. BYRON. Thank you.

Ambassador BLACKWILL. Madam Chairman, distinguished members of the panel, I am pleased to be here this morning to discuss the Vienna Mutual and Balanced Force Reductions [MBFR] negotiations with you. I will keep my introductory remarks brief so that we can pursue issues of particular interest to you.

As you are aware, the MBFR negotiations have been going on now for nearly a dozen years. While the 19 countries involved have reached accord in principle on some key points, the talks to date have not produced agreement on how to proceed to reductions of NATO and Warsaw Pact forces in a way that meets the interests of both sides—particularly, from our vantage, western security interests.

FACTORS CONTRIBUTING TO LACK OF RESULTS

A variety of factors have contributed to the lack of substantive results. A basic issue, of course, is the matter of Soviet interest—or, conversely, the lack thereof—in actually reducing its military presence in Poland, Czechoslovakia and the German Democratic Republic, as well as in reducing the Warsaw Pact's conventional superiority vis-a-vis NATO in Central Europe.

Setting aside for the moment this central question of Soviet motivations, there are at least three other fundamental factors which contribute to making these negotiations difficult.

First, there is the matter of geography. A glance at the map quickly demonstrates how the East's geographic situation—with the Soviet Union directly adjacent to, but outside, the reductions area—confers on the Warsaw Pact significant advantages for introducing reinforcements quickly into Central Europe. In contrast, U.S. troops are an ocean away.

We must be sure that any MBFR agreement does not shift the military balance even more in the East's favor. Thus, NATO has to carefully weigh the impact of geography in assessing the specific terms of any MBFR proposal—and in so doing, to recognize that geography intrinsically favors the other side in the NATO/Warsaw Pact security equation.

Second, there is the matter of the existing imbalance of conventional forces in Central Europe itself. According to Western estimates, the Warsaw Pact has over 200,000 more ground and air force personnel in the MBFR reductions area than does NATO. Achieving the Western goal of parity at lower manpower levels, which by definition requires that the East take significantly greater reductions than the West, runs into obvious difficulties, particularly as the East claims that a balance of forces already exists in Central Europe.

Third, there is the matter of the secretive nature of the Soviet system. The Eastern penchant for excessive secrecy--particularly with regard to military matters—places a formidable obstacle in the way to the necessary degree of clarity required for an effective agreement. These factors weigh heavily on the MBFR negotiations and are at the root of the two chief issues which have dominated the talks.

The first is the data issue. In brief, the sides disagree on the number of Warsaw Pact forces in the reductions area, with a discrepancy of approximately 20 percent between Eastern and Western figures. Our estimates indicate, for example, some 970,000 Warsaw Pact ground forces in the reductions area.

The Soviets and their allies, however, claim that the number is approximately 800,000. The deadlock on the data issue is longstanding, going back a decade at least. The import of the data issue goes beyond its implication of asymmetrical Eastern reductions if true parity is to be achieved, as both sides have agreed. There are also serious political questions which go to the very heart of the arms control process and raise doubts about Eastern intentions, as do documented Soviet violations of existing arms control agreements in other contexts.

The second major issue is verification. By and large the East insists—as it does in other arms control fora—that national technical means are sufficient to verify an MBFR agreement and has resisted such measures of verification as on-site inspection.

CURRENT STATE OF PLAY

The current Western proposal in Vienna calls for a single, comprehensive treaty, to be preceded by prior agreement between the two sides on the number of all ground combat and combat support forces in the area of reductions. The West is willing to set aside initially the issue of ground combat service support forces and air force personnel, where we believe much of the East-West data discrepancy may exist.

The proposal, which was originally tabled in 1982 and modified in April of last year, also calls for staged reductions—i.e., beginning with United States and Soviet reductions, followed by those of the other MBFR participants—to eventual common ceilings of 700,000 ground forces and 900,000 combined ground and air force personnel for each side in the reductions area.

The Western proposal also contains a set of interrelated "associated measures," so-called, including provisions for on-site inspection, which are aimed at strengthening confidence and stability, without unduly restricting normal peacetime activities.

The current Eastern position is based on a proposal tabled by the Warsaw Pact in February of this year. It calls for a limited, initial agreement focusing on United States and Soviet reductions only and a freeze on the forces of both alliances, deferring negotiations on further reductions. The proposal for Soviet reductions of 20,000 troops in return for United States reductions of 13,000 falls 10,000 Soviet troops short of the NATO position on initial United States-Soviet reductions. Moreover, the provision for a general freeze would contractualize the existing conventional military imbalance, and provide a disincentive for the Warsaw Pact to negotiate seriously any further reductions.

The latest Eastern position also demands reductions and a freeze on armaments, a move I believe clearly is aimed at derailing NATO conventional modernization efforts. The February Eastern proposal, however, makes no move to meet Western verification requirements and, indeed, arguably represents a hardening of the Eastern position.

The East's proposed freeze, for example, would be without numbers and would be verified by a combination of national technical means and what they call "political goodwill." As for the data issue, the East proposes to "resolve" this problem simply by dismissing it entirely.

I should stress that our NATO allies attach great political and military importance to MBFR. It is the one East-West arms control forum in which they are able to participate actively. As are our allies, the Reagan administration is currently concluding a review of the Vienna negotiations and how to conduct them in the months ahead. No conclusions have yet been reached and we will be consulting and coordinating closely with our NATO friends.

CONCLUSION

In sum, the prospects for progress in the near term in the negotiations are not especially encouraging. Resolution of the two key issues—data and verification—does not seem to be on the immediate horizon. The factors of geography, conventional imbalance, and Soviet secrecy continue to complicate our efforts aimed at reaching an effective and sound agreement.

At the same time, however, alliance unity continues to hold strong, and the NATO countries remain committed to achieving an agreement which corresponds to Western security requirements and interests. As my friend, Ambassador Kampelman, has indicated, the essence of arms control negotiations is that we must be prepared to sit at the table 1 day longer than the other side.

Finally, I would like to say how delighted I am that members from this panel will be visiting the MBFR negotiations in Vienna later this month at the beginning of the next round. I look forward to continuing our discussion of the MBFR talks there.

Mrs. BYRON. Thank you, Ambassador.

Let me go into a couple of questions I have. I think we can do them in open session. We may have to go into closed session. We just lost our quorum, so bear with me for a few minutes.

As you said, you talked a little bit on page 6 about the most recent Soviet/Warsaw Pact proposals. Do you find going back over the history of the MBFR that there are any new breakthroughs or any differences in those proposals than the ones that we have seen in the past? I know we consistently are concerned and one of the high priorities we have is verification. They have come back consistently without having an answer to verification and just ignoring the fact that it is a very serious stumbling block, but with examination of their new proposals this year in the last series of discussions, do you find that there are any changes in there at all or any softening?

Ambassador BLACKWILL. I think the simple answer is no. The Soviet proposal is really an aggregation of ideas they have had in the course of the negotiation; that is to say, that we should have a freeze on NATO forces and on Soviet and Eastern European forces with no data and obviously it is very difficult to verify whether someone is violating a ceiling if you don't have an agreement on what the ceiling is.

VERIFICATION

On verification, I think it is true to say that in the 12 years of negotiation they have made a few very modest steps forward, but compared to what is required to verify any MBFR agreement, they are far from what is necessary.

An example, but perhaps it will make it somewhat more vivid, the NATO position is that one must have entry-exit forums to watch the forces meant to leave the area and make sure that they don't come back into the area.

The Soviet proposal is that those observers would arrive a few days before the forces were meant to leave. They would watch them leave and then the observers themselves would leave. I said to my Soviet counterpart, "Do I have this straight? What would

happen is that you all could march out with bands playing on Tuesday and then the observers would leave and you could march back in with bands playing on Thursday."

I think that shows that they have a considerable way to go before they will meet the requirements that we must have in order to verify any MBFR agreement.

Mrs. BYRON. Looking at their proposals, have we had changes in the proposals? You say that the NATO Alliance puts a great importance on these talks, probably a higher importance than on some other series that are going on in Geneva. Do you see in any respect something changing on that side?

Ambassador BLACKWILL. Well, in 1984 in order to address this problem of data in which we are persuaded that they have well over 200,000 more forces in the area than they admit they have and we are confident that our figures are very close to being accurate that they are simply misrepresenting how many forces they have, in 1984 we said to them, a good deal of this disparity may be in the service support forces, not in the combat support forces, transportation, medical, that sort of thing, communications and, therefore, let's put those aside for data agreement purposes, let's put the air force aside for data agreement purposes and see if we can reach an agreement on the ground combat forces of NATO and the Warsaw Pact in order to show some flexibility on the data issue.

They were as opposed to that proposition as to any other we put forward and their assertion now for more than 5 years has been that they will not discuss data, that their data is on the table, that it is accurate data, that it is the West that is misrepresenting the data for political purposes and they will not discuss it.

We have said to them without a resolution of the data issue which is a requirement in order to verify any agreement, we simply wouldn't sign any treaty.

Mrs. BYRON. Do any of our sources give us an understanding or an idea whether we have had an increase or a decrease or has the number of forces remained fairly constant?

Ambassador BLACKWILL. The Warsaw Pact forces within the area of reductions have been fairly stable.

Mrs. BYRON. In other words, there has been no movement toward a reduction in number because of any potential results of the talks that are currently going on?

Ambassador BLACKWILL. No, quite the contrary. As a matter of fact I alluded to this at the outset. One of the fundamental questions about Soviet intentions is related to your point. It is that one has to ask whether they really want an agreement given their security requirements for maintaining their empire in Eastern Europe. We have to go on pushing them, I believe, in order to try to reach an equitable solution to this problem, but I think there is a real question about whether they want an agreement and whether their perception of their security requirements to allow them to take the sort of reductions that would be necessary in order to reach an agreement.

Mrs. BYRON. Just to end a series of thoughts on this initially with one question, and that is I have always advocated talking. As long as you are talking, you are making some kind of progress. If

you are not talking, you are not making any progress at all. And yet, looking over the history of the 12 years of this series of talks and the importance that the NATO allies put on it, do you think we should continue?

Ambassador BLACKWILL. I think that is a fair question. After 12 years, I think it comes across all our minds, including the American negotiator at the talks and across my mind, when the possibility of this job first came up, I think the answer is yes, for several reasons. The first reason, and I think the most important one, is that this is the most heavily militarized piece of real estate on the face of the Earth, 2 million men under arms, and I think we have to go on working on that problem. It is obviously a tough problem and one that doesn't lend itself to easy resolution, but it seems to me sufficiently important that we have to go on chewing on the piece of meat no matter how tough it is.

Second, our allies care a great deal about this negotiation. It is the only NATO-Warsaw Pact negotiation, the only negotiation in which they take part as equal partners in the arms control effort. In that sense, it is quite different in Geneva, which is a bilateral United States-Soviet negotiation, which they are interested in, but not direct participants in, so I think we should continue for that reason.

I believe it is important to go on talking with the East about these issues. I am skeptical that anything fundamental is going to change on their part, but I think we have to keep expressing our security concerns to them and that it is in our interest to do so.

Mrs. BYRON. One further question. I think the important aspect that you have to look at is the caliber of the individuals that the Warsaw Pact nations have representing them at these talks. We had a period of time when the caliber of the Russian Ambassador and several of the other nations were not of their highest top people. Has that changed somewhat or are we still dealing with people that are sort of down on the pecking order, so to speak?

Ambassador BLACKWILL. Well, first of all, we don't know a great deal about how Soviet defense policy is made, all too little I fear, and I can't speak very definitively about the influence of my Soviet colleague when he goes home. I can say he has been there for over 4 years. He knows the negotiation inside out. He is an able man and I think that is generally true of the other Eastern representatives as well. They are tenacious bargainers who represent their country's position very adroitly and I just hope we do as well.

Mrs. BYRON. Mrs. Holt.

Mrs. HOLT. Thank you, Madam Chairman.

I have some concern about verification. I think that is the bottom line on any negotiations. We certainly have not made progress with the Soviets in trying to have verification. I remember talking with Marshal Ogarkov several years ago asking him why they wouldn't agree. He said you have the means, your national technical means give you all the information. We know what you are doing and you know what we are doing. How do we square that with our claiming their 200,000 additional people? What do they say when we claim that the data is 200,000 more and they say, "Well, you are wrong on that." Do they ever agree that our verification methods are not good or why can't we get our data correct?

VERIFICATION

Ambassador BLACKWILL. First of all, they don't really quarrel with our figures. They simply say they are wrong, but not in any disaggregated way. An example, I was having a chat with my Soviet colleague and I said to him, "Every single independent research institution who looks at these matters in the West, whatever their ideological view, left, right, or center, has concluded that the Warsaw Pact has a significant conventional advantage in this area in Central Europe, including manpower."

I was saying that to try to buttress our arguments that they have many more people in Eastern Europe than they admit. He said, "I can quote one source which says quite the contrary." I said, "What is that?" He said, "The Soviet Ministry of Defense." I observed that that, in my view, wasn't a terribly independent source, but in any event, their position is that we have invented this more than 200,000-man disparity in order to sabotage the talks, and we haven't been able to shake them.

On the more general question of verification, I think you are right, it is the heart of the matter, because we have to be sure that any treaty we sign, that we can verify that the Soviet Union is adhering to its terms. I think we have to do that for several reasons, not least because if we sign any treaty which is weak on verification it will affect our capacity to sign other treaties.

So I think we have to be strong across the board and particularly in this negotiation I think it is important, but so far we haven't been able to shake the Soviets on that matter.

The final point is—and I refer to it in my statement—they can continue to say that all the problems of this negotiation can be solved if there is only sufficient political goodwill, and I have observed to them that a casual reader of the newspaper would seem to conclude that there is not a great deal of political goodwill between our two countries at the moment and it is beyond me why they imagine this is going to turn the trick.

But all this is a means to try to persuade us not so much in Vienna, but in our public opinion to put aside the fundamental problems of this negotiation and sign a freeze so that they would freeze their advantages in the area.

Mrs. HOLT. I certainly agree with you and with our chairman that talking is better than not talking, and I can see the advantage in having our allies involved in this negotiation, but sometimes I wonder what is in it for us? You know, they have such a geographic advantage over us, the Warsaw Pact countries, they could move forces much quicker than NATO could—I don't know exactly why we have arrived at the number that we have. Why not more, why not less, and wouldn't our NATO allies get in a real scrap about where the reduction was going to come, who is going to cut back?

They are all wanting to cut their defense budgets and so it seems to me that that would be a point of concern with them, and also what would we do with our forces? We really wouldn't have any place to bring them back to the United States and so it would mean a decrease in our military.

So I don't really see what we are aiming for except just to be talking for talking's sake. Do you have thoughts on that?

Ambassador BLACKWILL. I think those are very good questions and ones which people who are serious about the negotiation have to keep asking them to be sure they are not mindlessly going down a road established before without looking at fundamental issues. It has been the view of successive American administrations, including this one, that an MBFR agreement along the lines that I have described would be in the United States' interest and in NATO's interest.

There are several reasons for that. First of all, the kind of Soviet troop withdrawal that would be required would force them to reintroduce those forces into the central region in times of crisis which would give us more early warning and reduce the likelihood of surprise attack.

Second, in Europe this negotiation has had the advantage of forestalling unilateral troop reductions and there are always forces within European parliaments who would like to see us unilaterally disarm.

Our friends have been able to argue as long as we were negotiating with the East that wouldn't be sensible. The essential advantage of this agreement is that if we could reach such an agreement, it would increase our capacity to first deter the Soviets in a conventional war in Europe and thus make a nuclear war in Europe less likely because most people who look at this carefully believe that a nuclear war would follow a conventional war, so obviously conventional deterrence is very important.

A last point related to the chairman's initial remarks about the importance of judging arms control by what our defense requirements are, which I wholeheartedly support. That is that we are going forward, under General Rogers' supervision, with an initiative, with a considerable defense modernization effort, and all of that effort would be perfectly consistent with any MBFR agreement we would sign. There is no doubt about that fact, either in the United States or in the administration—and I discussed this at length with the Joint Chiefs last week—or in the Alliance. There is consensus that nothing in MBFR must inhibit our capacity to improve conventional defense.

Mrs. HOLT. Thank you.

Mrs. BYRON. Mr. Ray.

Mr. RAY. Good to have you here this morning. This morning I noted on the news that Mr. Gorbachev had advocated a zone free of chemical weapons in Europe. Are you familiar with that?

CHEMICAL-FREE ZONE IN EUROPE

Ambassador BLACKWILL. That is a long time Soviet propaganda ploy. I didn't hear the morning news. I was still in mourning after last night's game, so I probably wasn't listening to the news as carefully as I might have been. But the Soviet proposition that we should have an unverifiable chemical weapons zone in Europe has been there a long time.

Mr. RAY. Do you know the boundaries of such——

Ambassador BLACKWILL. I am not sure what he said this morning, but traditionally they have been interested in a zone which would be the two Germanys, as broad as possible from their point of

view, because they introduce no verification measures which would allow us to know whether they were keeping chemicals or not.

They would be sure that because of our public opinion and press we would adhere to a chemical weapons ban, and they would not. That is the purpose of that proposition. We have a global chemical weapons ban proposal on the table which they have continually rejected because of its verification provisions.

They would like to have a regime in which they are allowed to possess a chemical weapons capacity and we are not.

Mr. RAY. Do you think the fact that he has raised the subject is due to the fact that the Congress has passed the binary chemical legislation that we have? Do you think that might have brought this back to light?

Ambassador BLACKWILL. I think there is no doubt of that. The Soviets have watched for years the discussions between the executive branch and the Congress about binaries, and have done everything they could to reduce the American peoples' willingness to proceed in this way. And I think they are worried about it because they have a chemical warfare [CW] advantage in Europe and want to retain it.

As you know, the Soviet Union treats chemical weapons in the way they treat ordinary weapons, and they have a combined arms attack philosophy. It is not a special weapon system for them, and they would obviously like to keep their advantage because they think some day they might use them.

Mr. RAY. You mentioned that your counterpart had 4 years of experience. What is his name?

Ambassador BLACKWILL. His name is Mikhailov.

Mr. RAY. How long have you been there?

Ambassador BLACKWILL. I am a Foreign Service career officer, and have worked on arms control issues for the last 10 or 12 years of my career. I served in Kenya and London, then served in Tel Aviv at our Embassy there during the Camp David negotiations.

More recently I served in the Politico-Military Affairs Bureau in the State Department.

Mr. RAY. You have just reported for duty in Vienna?

Ambassador BLACKWILL. Yes; the last 2 years I was on sabbatical leave at Harvard. I arrived there in May and have done one round.

Mr. RAY. It seems to me that we rotate our people around and about the time they get skilled and ready to go to work and the Soviets leave their people on hand waiting for our people to leave. I would think this might not be in our best interest to do that.

Do you know if any kind of new strategy is in place or being thought about that might be different from anything we have done today? It seems to me we are beginning to get into more of the issue, which is dialog and talking, which I advocate, but it does appear to me that we ought to have some sort of a new type innovation or strategy to hit with.

Ambassador BLACKWILL. Maybe it is only partly, because I grew up on a Kansas farm, but I am a little bit suspicious of overly inventive minds. And I think our fundamental approach to MBFR has been correct, consistent for 12 years, one that has been supported by our allies, and at least so far we believe that it was the appropriate one to follow.

We are now looking at the negotiations in the administration. We are in discussion with our allies about how we should conduct ourselves in Vienna and that will continue, but I would say one thing on that score. This is speculation, but I believe it to be the case. I think when the Soviets decided to join the MBFR negotiations in early 1973, they very much hoped that some of the possible definitions that Mrs. Holt had mentioned earlier would dominate the alliance discussions, and the Soviets could use MBFR to guide the alliance.

They have been disappointed if that indeed was their objective. I think one of the major benefits of this negotiation has been the solidarity that has characterized the negotiations on the Western side for these 12 years, and our capacity to discuss not just with the East, but with our allies the requirements for the defense of Central Europe. And I think there has been an educating process.

I don't mean to make it sound as if it is all one way either. I think NATO is much more aware of the Soviet today than it was 12 years ago. I think that our approach is fundamentally sound, and I would want to look very carefully at any new idea that might emerge.

Mr. RAY. Thank you.

Mrs. HOLT. Will the gentleman yield?

Mr. RAY. Yes.

Mrs. HOLT. I move that the Chairman be authorized to go into executive session for today and 5 additional consecutive days of hearings for the purpose of receiving classified information regarding national security.

Mrs. BYRON. Call the roll.

Mr. KLEIN. Mrs. Byron.

Mrs. BYRON. Aye.

Mr. KLEIN. Mrs. Holt.

Mrs. HOLT. Aye.

Mr. KLEIN. Mr. Mavroules.

[No response.]

Mr. KLEIN. Mr. Badham.

[No response.]

Mr. KLEIN. Mr. Ray.

Mr. RAY. Aye.

Mr. KLEIN. Mr. Courter.

Mr. COURTER. Aye.

Mr. KLEIN. Mr. Spratt.

[No response.]

Mr. KLEIN. Mr. Stratton.

Mr. STRATTON. Aye.

Mr. RAY. That concludes my remarks.

Mrs. BYRON. Mr. Courter.

Mr. COURTER. Thank you.

There is a substantial disagreement, I gather, between the Soviet stated pronouncements as to the number of troops that they have, and our knowledge as to how many troops that they have. And that is a substantial difference of 200,000 or more.

Is there an agreement as to how many troops we have?

Ambassador BLACKWILL. Yes; and they have never quarreled with that. We put down data at the outset of the negotiation in 1973, and they have never quarreled with our numbers.

Mr. COURTER. Do we have to go into closed session for you to describe what truth you proffered to the Soviet Union as to how we arrive at our numbers as to their force levels?

Ambassador BLACKWILL. Well, we would have to go into executive session if I were to describe to you how we aggregated these numbers, but we don't go into detail with the Soviets about how we do it for precisely the same reason that we would have to go into executive session to talk about it. That is to say it is a sources and methods question.

Mr. COURTER. You say, look, we know you have so many, and that is it?

Ambassador BLACKWILL. We have tabled numbers for their forces, and we believe that they know that those numbers are more or less accurate. These numbers are consistent with independent research organizations' tabulations of their forces. And they have denied it.

Mr. COURTER. You have been there a period of time, and I am sure you spoke to prior U.S. negotiators that have been negotiating this thing for 12 years. Has there ever been any informal cocktail hour wink of the eye from the Soviet side saying this is a merry-go-round and we know that you are right on our numbers?

Ambassador BLACKWILL. No.

Mr. COURTER. I mean after a vodka or anything like that.

Ambassador BLACKWILL. No.

Mr. COURTER. No break?

Ambassador BLACKWILL. No, at least not that I am aware of. They are very disciplined. Their society requires it.

Mr. COURTER. It has been going on for 12 years. What do you do all day? I am up-to-date now on what has happened. I am very curious what happens for another 3 months or something after 12 years, and the Soviets say that is so many troops we have. Do you say, no, you don't. You have that many?

It seems that could be said in 30 seconds.

Ambassador BLACKWILL. The diplomat's task is to say in an hour what others could say in 30 seconds. You may be on to something here. I could tell you what happens in an ordinary week. There is, for those of you who can come to Vienna, I will try to make sure you see as much of this as possible.

There is a plenary session in which one side or the other reads a plenary statement. It is like a United Nations speech. There is no give and take. One side reads a statement, and it takes one element of their position and describes it, and it is quite repetitive as you suggested. But in addition, there are other meetings, formal and informal with the Eastern colleagues in which we continue to argue our point of view with them, and they continue to argue their point of view with us.

Finally, a major part of my time and that of my allied counterparts is taken up with discussions among ourselves. Not to become too technical and pedantic here, but this negotiation is unusual because our instructions come from the NATO Council. My instructions don't come from the President. They come from the NATO

Council. Basically, whatever we say to the other side has to be approved by all the NATO participants in this negotiation, and that means that we have a mini NATO, which is happening in Vienna. And it takes a lot of time.

I would like to say a last thing about patience. I remember reading a poem once which characterized Mother Russia as the seat of patience. They are an extraordinarily patient people. Their constant refrain in Vienna is why don't you think of something different, because what you are suggesting obviously won't work.

I think it is our task to continue to try to persuade them that what we have suggested is sensible; is in both side's interest, and that they should try to reconsider it. It has been going on 12 years. There are obviously some fundamental problems, and we stick by our principles which we certainly should. Then there are obviously great hurdles to overcome in this negotiation on the part of the other side.

We have a fair, equitable position, and have had for years, and I think we should abide by it. In arms control, one of the dangers is that one does become bored or impatient, and I really do believe that on the Western side. And this has certainly been the case, I think, for more than a decade that we have had patience, have stuck to our central principles, and have to continue doing it.

But they are very good at that, and we have to be just as good, and 1 day longer as Max Kampleman suggested. If they believe that we will tire with this negotiation and begin to become inventive and creative, they will wait for that moment to arrive, and we have to persuade them it isn't going to arrive. And they will have to negotiate in a way which produces equity, not unilateral advantage, which has been one way to sum up their position since 1973.

Mr. COURTER. Thank you.

Mrs. BYRON. Mrs. Holt, see how nice I am? I have a few.

Mrs. HOLT. All right.

Mrs. BYRON. Let me touch on a couple of things. Are there any existing treaties governing currently our relationships between NATO and the Warsaw Pact on troop strengths?

Ambassador BLACKWILL. No.

Mrs. BYRON. None whatsoever?

Ambassador BLACKWILL. None whatsoever, and that has been the purpose of this negotiation.

Mrs. BYRON. You also mentioned that the 19 countries had involved and actually agreed on a few key points. Could you discuss those key points that they have where both sides have made some progress?

Ambassador BLACKWILL. Well, yes, but you have to underline few here. One always looks——

Mrs. BYRON. In red.

Ambassador BLACKWILL. In red, exactly. First of all, the two sides have agreed that the goal is a common ceiling on manpower and including ground forces and air forces of 700,000–900,000, 700,000 for ground forces and 900,000 for ground and air. That is the good news.

The bad news is that they are nowhere near agreeing on how many forces are actually there now, but they have agreed on that. They have also agreed that in the sequence of reductions, the

United States and the Soviets should withdraw first, followed by other reductions of the other NATO-Warsaw Pact countries.

They have agreed that the form of reduction should be in manpower, and finally, the Soviets, as I suggested to Mrs. Holt earlier, have agreed to some very tepid, inadequate verification measures, but they are more than they agreed to at the beginning of the negotation, but there is still a very long way to go before we would reach a situation in which an agreement was on the immediate horizon.

Mrs. BYRON. The other point that I wanted to touch on is in light of the recent killing of Major Nicolson. Is that going to hamper our intelligence gathering and insight on the Warsaw troop strengths by on-site inspections with a potential risk to our soldiers' lives?

Ambassador BLACKWILL. You can find more expert witnesses than myself to talk about the particular activities of our liaison teams, but I can say this—I thought this, in fact, the morning that I heard on "The Voice of America," that this horrifying incident happened.

I think it does display a fundamental characteristic of the Soviet system what happened there, which is easy resort to violence and a tremendous antipathy to openness, and most of those obviously have implications for the MBFR negotiations because a country which could be part of that murder, and particularly as a result after that murder, one has to wonder whether they ever will open themselves up sufficiently in order to have a verification regime that we could have some confidence would detect any violations.

That is especially true given their conduct in other arms control negotiations so the burden really is on them to show that they are willing to verify and to adopt measures which would allow us to verify these force levels. And I think one would have to be skeptical, given the whole nature of their society, that they will be willing to do so.

I think we have to go on trying to show not only the experts, but public opinion that this is the case, and why it is the case, and what it tells us about this form of government. And my NATO colleagues, in fact, believe that is very important, that this is a negotiation which does have some prominence in Europe, much more so than in the United States because it is the one that they participate in, and they argue to me, and I think there is a good deal to this, that this negotiation has shown the nature of the Soviet regime and has shown the difficulty in reaching agreement with them.

Mrs. BYRON. I have no further questions.

Mr. Stratton, do you have any questions.

Mr. STRATTON. No questions, Madam Chairman.

Mrs. BYRON. Mrs. Holt.

Mrs. HOLT. No questions.

Mrs. BYRON. Mr. Klein, do you have any questions?

Mr. KLEIN. Thank you, Madam Chairman.

Mr. Ambassador, about 2 years ago this month General Rogers began, I believe, a big push to build up NATO, especially their conventional forces, urging the NATO governments to spend more money. I believe it was 4-percent-a-year increase instead of 3, and

to substitute insofar as possible high technology and conventional weapons for nuclear weapons.

About 2 years ago next month, the Montebello Group met and decided to, over the next few years, remove another 1,400 nuclear weapons from Europe, which would make 2,400 weapons withdrawn since 1979. It appears that what General Rogers might want to do might be somewhat contradictory to the basic premises of what you are trying to accomplish in MBFR negotiations in that if there is, in fact, a buildup of high technology weapons, and these other things, they will have to be followed by a train of experts to service them, maintain them, operate them, such things as longer range aircraft, missiles of different types and the service people that go with them.

Does this sort of change the way that we are looking at the MBFR, or would it have a tendency to perhaps have the Russians or the Soviet negotiators take a harder look at any concessions that they might be willing to make?

BUILDUP OF NATO FORCES

Ambassador BLACKWILL. Well, I think the simple answer is, no. The Supreme Allied Commander—and we have had several of them since the outset of this negotiation—and this strongly includes General Rodgers—has always supported MBFR for the reasons that I mentioned earlier in response to a question. And General Rodgers' view, which I believe is right, is that the MBFR proposal, which we have on the table, is consistent with his strenuous efforts to improve conventional defense, but I think you have pointed out an important issue, which is the armaments issue.

It is striking that the East has now in the negotiation mounted a renewed emphasis on limiting armaments, precisely the armaments that you were mentioning. And I have said to my Soviet colleagues that I see they read the "Herald Tribune," and know that we are interested in improving our conventional defense.

Our effort is precisely to improve conventional defense and armaments, which has led them to want a freeze on armaments, but we understand that, and we are not going to let that become a problem.

Mr. KLEIN. Have the basic tenets of MBFR changed since in the past 12 years? We have had considerable changes in Soviet airlift capability and their tactical aircraft. They have developed a sealift capability so that the forces within the central area may not be the primary forces that would include the defense of NATO.

The air power, for example, Soviet air power, might be the decisive thing rather than armor.

Ambassador BLACKWILL. Well, it has been a conviction of ours from the outset of this negotiation that aircraft just must not become limited in this negotiation because we depend so much on redeploying aircraft, as you know, from the United States and European contingencies to Central Europe.

But you are right to say that what we have to continue to do is ask ourselves that fundamental question as this massive Soviet effort to improve its conventional position in Europe from a position of superiority, to start with, continues. We have to review

always our basic tenets to this negotiation and be sure that our position is consistent with safety and prudence and our defense.

Mr. KLEIN. Thank you, sir.

Mrs. BYRON. Thank you very much, Mr. Ambassador. I appreciate very much you taking the time in your schedule to give us what I think is a good overview of where you see the first rounds of a very tedious series of discussions going. And I appreciate the time.

Ambassador BLACKWILL. Thank you for having me, and I look forward to seeing you in Vienna.

Mrs. BYRON. The panel will adjourn until 2 o'clock.

[Whereupon, at 11:15 a.m., the panel was adjourned to reconvene at 2 p.m. the same day.]

AFTERNOON SESSION

Mrs. BYRON. Our first witness this afternoon is Ambassador Donald Lowitz, who is the U.S. Representative to the Conference on Disarmament in Geneva. The Conference on Disarmament, as described by the General Assembly of the United Nations, is the single multilateral disarmament negotiating forum of the international community. As such, the Conference plays an important role in the disarmament machinery available to the United Nations. For example, the agenda of the Conference on Disarmament for 1984 included such items as a nuclear test ban, chemical weapons, weapons in outer space, and new types of weapons of mass destruction.

I have asked Ambassador Lowitz to address the chemical weapons and nuclear test ban negotiations today in addition to other activities that are being carried out by the Conference on Disarmament.

Following the appearance of Ambassador Lowitz, Dr. Robert Barker, who is the Deputy Assistant Director of the Bureau of Verification and Intelligence of the U.S. Arms Control and Disarmament Agency, will present a briefing on verification requirements for agreements limiting the testing of nuclear weapons.

I note that both witnesses have unclassified prepared statements. Following the presentation of their unclassified statements, the witnesses will be given an opportunity to elaborate on their statements in closed session in accordance with the authority granted to the chair by the panel's vote this morning.

Ambassador, it is good to see you again and you may proceed.

STATEMENT OF AMBASSADOR DONALD LOWITZ, U.S. REPRESENTATIVE TO THE U.N. CONFERENCE ON DISARMAMENT

Ambassador LOWITZ. Thank you very much, Madam Chairman.

I would like to introduce Dr. Pierce S. Corden, who is a member of my delegation on the Conference on Disarmament.

It is a pleasure to be here today, and I have submitted a prepared statement and would like to touch on the highlights of the statement at this point after which I will be pleased to answer your questions.

As you know, the Conference on Disarmament is the principal multilateral body that the international community has, and it has

the objective of carrying out substantive work in the area of arms control and disarmament, in negotiating agreements affecting the international community as a whole. The Conference is the successor body to a number of predecessor organizations that began with the 18-Nation Disarmament Conference in 1962. The Conference, as its predecessors, operates on the basis of consensus, and this ensures that the United States and the other members can protect their essential interests. The membership of the Conference includes the militarily important states in the world, or most of them, and it includes for the first time all five of the nuclear weapon states: the United States, Soviet Union, United Kingdom, France, and China.

The United States is joined in the Western Group by a number of its NATO allies: Canada, United Kingdom, France, Federal Republic of Germany, England, and the Netherlands, as well as by Japan and Australia. The Soviet Union and other members of the Warsaw Pact nations belong to the Conference as well as Mongolia. There are 21 nonaligned states participating, ranging from Sweden to India, Pakistan, Brazil, Argentina, Mexico, and Egypt.

Each year the Conference begins its session and meets from February until May and again from June until September. Annually it determines its agenda and program of work, but basically these have not varied much over the past 7 years. We have added two new items to the agenda: the question of "The Prevention of Nuclear War, Including All Related Matters," and "Prevention of an Arms Race in Outer Space."

In addition, the Conference deals with the issues of nuclear test ban, nuclear disarmament, chemical weapons, radiological weapons, new types of weapons of mass destruction, negative assurances, and a comprehensive program of disarmament.

CHEMICAL WEAPONS NEGOTIATIONS

At this time in my view and in the view of the administration, the most important issue facing the Conference on Disarmament is that of chemical weapons, and I think the objective of the administration is clear. It is our desire to negotiate promptly a comprehensive ban on chemical weapons as well as to make sure that we can prevent their further proliferation; and until a ban is in force, the question of proliferation is, of course, an important one.

The work of the Conference on chemical weapons is carried out primarily in a subsidiary body known as the Ad Hoc Committee on Chemical Weapons, and it is that body that is dealing now with the question of negotiating a convention. The United States introduced a proposed draft chemical weapons convention in April 1984 when Vice President Bush visited the Conference and presented the draft treaty on behalf of the United States.

This year the Conference committee has produced for the first time what is the beginning of a comprehensive text for a chemical weapons convention; and although this text contains many bracketed portions and some incomplete sections, it is the basis on which we will now continue our work next session.

In reviewing the chemical weapons negotiations during this past year, I think it is fair in my opinion to say that we have seen a

modest amount of progress, although largely of a procedural character. It is regrettable to me and to my delegation that the negotiations continue to move much too slowly, and it is regrettable that the continuing spread and use of chemical weapons has not yet seemed to have imparted a greater sense of urgency to the Conference's work.

As I review this session's negotiation, it appears that immediately following the House vote to authorize the production of binary chemical weapons the Soviet Union reacted in a highly polemical fashion and for a few weeks adopted a stance of silent withdrawal from negotiations. Then I believe the Soviet Union assessed the situation and concluded that the United States resumption of chemical weapons production might well become a reality, and it was in their interest to participate in the negotiations rather than to remain silent. At this point they resumed negotiating and the modest progress that we achieved in the committee occurred largely in the closing weeks of this year's session with the active participation of the Soviet delegation. This seems to indicate that the prospect of U.S. resumption of chemical weapons production may provide some incentive to the Soviet Union to become serious about the chemical weapons convention.

I want to caution against making too much of the largely procedural progress made thus far this year. The comprehensive ban on chemical weapons we seek will be a complex agreement, as it must ensure destruction of chemical weapons stockpiles and that new stocks are not illegally produced in the peaceful chemical industry. Negotiation of such a ban is perforce a complex and lengthy undertaking. At present, on the most important substantive issues, verification in particular, there continues to be little agreement. While we search for mutually acceptable solutions, we continue to view as essential the need for mandatory, short-notice challenge inspection provisions—that would apply to any government-owned or controlled facility—and these would complement the more routine types of verification of such matters as destruction of stockpiles and the nonproduction of chemical weapons in the chemical industry.

On the other hand, we have made it clear in Geneva that it is the level of verification required to satisfy security concerns, and not necessarily our specific language, that is important in the negotiation.

My delegation often maintains very close contact with many other delegations in the Conference on chemical weapons, as well as other matters pending before the Conference. We have had a bilateral dialog on the chemical weapons issue with the Soviet Union delegation, and I would be pleased to expand on these discussions in a closed session.

PREVENTION OF SPACE ARMS RACE

I would like to turn briefly to two other agenda items which have received a considerable degree of attention in the Conference. The first is that of the prevention of an arms race in outer space. Clearly, a primary focus on this important matter is the bilateral nuclear and space talks, which will resume again next week in

Geneva. However, we must recognize that many states have an interest in the outer space environment. This year, the Conference carried out an initial examination of outer space issues relevant in a multilateral arms control context. The United States fully participated in these activities, but thus far we do not see the possibility of identifying any particular subject as appropriate for beginning a multilateral negotiation.

A second item is that of a comprehensive nuclear test ban. We have made it clear in Geneva that our position continues to be that a complete cessation of nuclear explosions is a long-term objective of the United States. We have stressed that achievement of deep reductions in the nuclear arsenals of the Soviet Union and the United States is a more meaningful approach to nuclear arms control and should take precedence.

At the CD we have continued to support the need for substantive work on a range of test ban issues, including the scope of an eventual ban and verification of compliance. In particular, we have endorsed and supported with significant financial and technical resources the work of the group of experts in seismology and data processing that has been developing ways of exchanging seismic data on a global basis for verification of a comprehensive test ban.

In reviewing this past year's session, I believe on balance that the Conference had some modest success, particularly in the area of the chemical weapons negotiations. We attempted and I believe succeeded in making clear the United States positions on the issues dealt with in the CD and maintained unified positions with our allies.

As of now much of the focus of multilateral arms control efforts will shift to the United Nations General Assembly, where its First Committee, beginning in October, will take up and debate a wide variety of arms control issues.

I will be representing the United States in this work and I will be joined by a large number of my colleagues from the Conference on Disarmament in Geneva.

At this point I would be happy to answer your questions. Thank you.

PREPARED STATEMENT OF AMBASSADOR DONALD LOWITZ

I am pleased to have the opportunity to appear before you today to discuss the activities of the United States in the Conference on Disarmament (CD). I was appointed United States Representative last December, and took up my duties in Geneva in January.

As you may recall—or in the case of those of you who have been to Geneva, as you know first hand—the Conference on Disarmament is the principal multilateral body of the international community with the objective of carrying out substantive work in the area of arms control and disarmament and negotiating agreements affecting that community as a whole.

The CD is the successor body to predecessor organizations dating back to the Eighteen Nation Disarmament Conference established in 1962. These bodies have been associated with negotiations leading to several important arms control treaties, including the 1963 Limited Test Ban, the 1968 Non-Proliferation Treaty, the 1971 Seabeds Convention, the 1972 Biological and Toxin Weapons Convention, and the 1976 Environmental Modification Convention. While the prior bodies operated under a United States and Soviet Union co-chairmanship arrangement, in 1978, following the First Special Session of the UN General Assembly devoted to disarmament, it was agreed that the new body, with an expanded membership of forty states, would operate with a chairmanship that rotated on a monthly basis. The

Conference, as did its predecessors, operates on the basis of consensus. This ensures that the United States, and the other members, can protect their essential interests.

The CD is not a United Nations entity, although the UN Secretary-General appoints a personal representative, who heads the CD's secretariat. The secretariat is also staffed by United Nations personnel. The CD also submits an annual report to the UN General Assembly.

The Conference includes most of the militarily important states in the world. For the first time, all five nuclear weapon states—the United States, the Soviet Union, the United Kingdom, France, and China—participate in a disarmament negotiating body. The United States is joined by many of its NATO allies—Canada, the United Kingdom, France, the Federal Republic of Germany, Italy, Belgium, and the Netherlands—as well as Japan and Australia. The Soviet Union has the other members of the Warsaw Pact and Mongolia as its allies. Twenty-one neutral or non-aligned states participate ranging from Sweden to India and Pakistan, Brazil and Argentina, Mexico and Egypt.

Each year the Conference meets from February to May and from June to September. It determines its agenda and program of work on an annual basis, but these have not varied much over the seven years that the Conference has met. Recently, two new items have been added to the agenda—the question of "The Prevention of Nuclear War, Including all Related Matters," and that of "The Prevention of an Arms Race in Outer Space." The other items include nuclear test ban, nuclear disarmament, chemical weapons, radiological weapons, new types of weapons of mass destruction, so-called negative security assurances, and a comprehensive program of disarmament.

Of the broad spectrum of items on its agenda, at the present time the one of most importance, in my view, is that of chemical weapons. The clear objectives of the Administration in this area are to negotiate promptly a comprehensive ban on these weapons that have such terrible effects, as well as to seek to prevent their further proliferation; and, so long as a comprehenisive ban is not in place, to maintain an adequate retaliatory capability to deter their use by the Soviet Union.

The work of the CD on chemical weapons is carried out largely in a subsidiary body—the Chemical Weapons Ad Hoc Committee—which has the task of developing a convention. As you know, the United States introduced a complete draft of such a convention when Vice President Bush appeared before the Conference in April 1984. At the urging of our delegation, the chemical weapons committee has now produced, for the first time, a comprehensive text—albeit one containing many bracketed portions and incomplete sections—which the Committee has agreed will serve as the basis of its further work.

In an effort to continue the chemical weapons negotiations on a timely basis, the Conference has agreed that informal consultations within the framwork of the Chemical Weapons Committee will be held this fall for three weeks, as well as a formal Committee session in January, before the CD begins its 1986 session in February.

In reviewing the chemical weapons negotiations this past year, I see a modest amount of progress, although largely of a procedural character. It is regrettable that the negotiations continue to move much too slowly. It is regrettable that the continuing spread and use of chemical weapons has not yet imparted a greater sense of urgency to the CD's work.

I mentioned the Administration's position concerning our need to maintain an adequate retalitory chemicals weapons capability to serve as a deterrent to the use of these weapons by the Soviet Union. In addition, as I review this session's negotiations, it appears that immediately following the House of Representatives vote to authorize the production of binary chemical weapons, the Soviet Union reacted in a polemical fashion and for a few weeks adopted a stance of silent withdrawal from active negotiations. Then I believe the Soviet Union assessed the situation and concluded that, since United States resumption of chemical weapons production might well become a reality, it was in their interest to participate in the negotiations rather than to remain silent. The Soviet delegation then resumed negotiating and the modest progress achieved in the Committee occurred largely in the closing weeks of this year's session with the active participation of the Soviet delegation. This seems to indicate that United States resumption of chemical weapons production may provide some incentive to the Soviet Union to become serious about a chemical weapons convention.

I must caution against making too much of the largely procedural progress made by the Chemical Weapons Committee during 1985. The comprehensive ban that we seek will of necessity be a complex agreement, as it must ensure both the destruction of existing chemical weapons stockpiles, and that new stocks are not illegally

produced in the peaceful chemical industry. The negotiation of such a ban in perforce a complex and lengthy undertaking. At present, on the most important substantive issues, verification in particular, there continues to be little agreement. While we search for mutually acceptable solutions, we continue to view as essential the need for mandatory, short-notice challenge inspection provisions—that would apply to any government-owned or -controlled facility—to complement the more routine types of verification of such matters as the destruction of stockpiles and the non-production of chemical weapons in the chemical industry. On the other hand, we have made clear in Geneva that it is the level of verification required to satisfy security concerns, not necessarily our specific language, that is important.

Let me add that the delegation, of course, maintains close contacts with many other delegations in the Conference on these negotiations as well as on other matters. We have had a bilateral dialogue on the chemical weapons issue with the delegation of the Soviet Union, and I should be pleased to expand on those discussions in closed session.

Let me discuss with you very briefly two other agenda items which have received a considerable degree of attention in the Conference. The first is that of the prevention of an arms race in outer space. Clearly, a primary focus on this important matter is the bilateral nuclear and space talks which are to resume shortly in Geneva. However, we recognize that many states have an interest in the outer space environment. This year, the CD carried out an initial examination of outer space issues relevant in a multilateral arms control context. The United States fully participated in these activities, but thus far we do not see the possibility of identifying any particular subject as appropriate for beginning a multilateral negotiation. I expect the question of outer space to continue as a major issue in the CD.

The second item is that of a comprehensive nuclear test ban. We have made it clear in Geneva that our position continues to be that a complete cessation of nuclear explosions is a long-term objective of the United States. We have stressed that the achievement of deep reductions in the nuclear arsenals of the Soviet Union and the United States is a more meaningful approach to nuclear arms control, and should take precedence. At the CD, we have continued to support the need for substantive work on a range of test ban issues, including the scope of an eventual ban, and verification and compliance. In particular, we have endorsed, and supported with significant financial and technical resources, the group of experts in seismology and data processing that has been developing ways of exchanging seismic data on a global basis for verification of a comprehensive test ban.

On balance, I believe that the Conference on Disarmament had a year of modest success, particularly in the area of the chemical weapons negotiations. We attempted and I believe succeeded in making clear the U.S. positions on the issues dealt with in the CD and maintained unified positions with our Allies. I am looking forward to the resumption of formal work in the Conference in February.

In the meantime, much of the focus of multilateral arms control efforts will shift to the United National General Assembly, where its First Committee will take up and debate a wide variety of arms control issues. I will be representing the United States in this work, and I will be joined by a large number of my colleagues from Geneva.

This completes my prepared remarks. I should be pleased to respond to any questions that you might have about these or other issues being addressed in the Conference on Disarmament.

Mrs. BYRON. Let me—I guess we will have to go into closed session on the questions I have. I wanted to pursue a little bit more about the changes that you saw after the House for the first time passed a chemical weapons program this year. And so I will yield to Mrs. Holt.

Do you have any questions?

Mrs. HOLT. I would like to reserve my questions until we go into closed session, too.

Mrs. BYRON. Mr. Ray.

Mr. RAY. I enjoyed your presentation. This morning I asked a question of the gentleman who appeared before us, one of your colleagues. I heard on the news this morning that Gorbachev had advanced a notion that he would consider a chemical weapons-free zone in Europe, and I asked what he thought—what was his opin-

ion on this. Ambassador Blackwill said that it was not something new.

Do you have an opinion on it or do you know about this late evidence——

Ambassador LOWITZ. I am not aware of the statement other than coming down here having heard that such a statement was reported to have been made; but Ambassador Blackwill is right, it is not something new and it is in my judgment not something that would be advantageous for the United States. It does not do anything to ban the production or availability of chemical weapons. It merely would take the chemical weapons out of a given geographic area but would still have them available adjacent to that area for use if deemed desirable to do so.

Mr. RAY. Have such areas ever been identified, would it be the Warsaw Pact countries and Germany—do you have any particular idea of where the areas would be so identified?

Ambassador LOWITZ. I am not certain what the area would be. In some discussions that have gone on in, I believe, the SPD party in West Germany they have talked about that limited area.

Mr. RAY. Perhaps that statement by Gorbachev—would it have been generated simply by the action that the Senate and House recently took on binary weapons, would that cause an interest in him raising that question or would you have any idea?

Ambassador LOWITZ. It would be difficult to speculate.

Mr. RAY. How long have you been negotiating? You were in Geneva, right?

Ambassador LOWITZ. I am in Geneva during the sessions of the Conference, yes.

Mr. RAY. You have been there for how many years?

Ambassador LOWITZ. I just started in January of this year. I took this position in December and prepared and went over to Geneva in January for the session beginning in February.

Mr. RAY. Thank you, sir.

Ambassador LOWITZ. Thank you.

Mrs. BYRON. Mr. Courter.

Mr. COURTER. Thank you.

I, as well, enjoyed your testimony very much. Is it widely known among the 40-odd nations that you negotiate with that the Soviet Union is in violation of two important arms control agreements with respect to chemical and binary weapons?

Ambassador LOWITZ. Well, when you said widely known, it is hard to put oneself in the heads of the other delegations but clearly one of the issues that we have discussed at the Conference on a regular basis is the United States concern with the Soviet violations of treaties and the problems attendant to making certain that there will be compliance with treaties, so it is a subject with which there is familiarity.

We did provide to the Western group and to the nonaligned group a compliance briefing during the summer so that we did make available to them understandings that we have.

Mr. COURTER. Did they go to the compliance briefing?

Ambassador LOWITZ. Yes. The attendance I think was very good.

Mr. COURTER. Did the Soviets go to the compliance briefing?

Ambassador LOWITZ. No, we did not invite them.

Mr. COURTER. Did any East bloc countries, Warsaw Pact, go to the briefing?

Ambassador LOWITZ. No. We had two briefings, one for the Western allies and one for what is the 21-nation nonaligned group. We did not offer the briefing to the Soviets or the Eastern bloc countries.

Mr. COURTER. I notice there is a reference in the notes in your testimony about the fact that there have been some discussions about weapons in space. Can you briefly let us know what has been talked about with regard to your 40-nation group on that?

WEAPONS IN SPACE

Ambassador LOWITZ. Well, the whole question of outer space is an area of great interest, obviously, to the members of the Conference. It has been our position that most of the outer space issues at this point are being addressed in the bilateral discussions between the United States and the Soviet Union, but that it was proper to have a discussion and an investigation of the issues.

Much of the time was spent discussing the existing legal regimes and their application to outer space, and that took up a great deal of time.

There were some other discussions on other areas.

Mr. COURTER. There were discussions on space weapons or weapons in space?

Ambassador LOWITZ. Yes, yes, there were. It is hard to——

Mr. COURTER. What did it boil down to? You know what I am getting at. Were most countries concerned about the United States militarizing outer space?

Ambassador LOWITZ. Well, obviously, the Soviet Union and its allies have used the Conference as another forum in which to talk about the Strategic Defense Initiative, so that has been their primary thrust. The nonaligned countries have a considerable interest in the subject, but obviously much less knowledge about it, and they exhibit a great deal of concern about the question of militarization of space.

When you start discussing in detail what is militarization of space and what has gone on there it becomes more complex and there is less general understanding. We viewed it as our role to attempt to set the record straight as much as possible, also being very cautious and conscious of the fact that this is a very major portion of the bilateral negotiations, and that we didn't want to do anything that would interfere with that.

Mr. COURTER. I notice also there was something about a comprehensive test ban treaty. Is that very far along or are discussions with regard to a comprehensive test ban treaty very far along, and what is our position?

Ambassador LOWITZ. Our position as I indicated in my statement was that we view achievement of a comprehensive test ban as a long-range goal and that there are other questions that ought to take precedence; namely, the reduction in nuclear weapons on both the part of the United States and the Soviet Union.

We and our allies at the Conference have maintained that even though we are not prepared at this point to negotiate such a treaty

there is useful work that ought to be done as against the time when such a treaty might become appropriate.

Mr. COURTER. Why aren't we prepared to negotiate that type of a treaty, is that because of verification concerns?

Ambassador LOWITZ. That is part of the issue but not the entire issue. Perhaps that question would be best addressed to Dr. Barker, who I understand will follow me and will be discussing that in depth.

Mr. COURTER. Thank you very much.

The CHAIRMAN. Mr. Stratton.

Mr. STRATTON. Ambassador, you point out that this began with the 18-nation Disarmament Conference in 1962, subsequently expanded to 40 states as the Disarmament Committee, and now it is a Conference. How many members are in it at the present time?

Ambassador LOWITZ. It now contains 40 countries.

Mr. STRATTON. Forty?

Ambassador LOWITZ. Yes.

Mr. STRATTON. What about these additional countries? Were they included in the 40-nation Disarmament Committee as well?

Ambassador LOWITZ. Yes.

Mr. STRATTON. Brazil, Argentina, Mexico, Egypt, Mongolia——

Ambassador LOWITZ. Yes. What is now the Conference was up until 1984, I believe, called the Committee on Disarmament and it was just a change of name, but in 1979, when this format was established, it was then 40 nations and it is the same 40 nations now. The conferees determined that they would add four more countries, one from the Western Group, one from the Eastern bloc and two from the nonaligned. Since the Conference operates by consensus, they have not yet been able to reach agreement on the four countries, so that there have been no additions.

Mr. STRATTON. I think you indicated in your remarks that the action provided by the House in approving binary weapons provoked some activity on the part of the Soviet Union delegate. However, I would point out that we are not out of the woods because it is very likely, as I understand it, and as we have been led to believe, that there will be a further vote in the House on whether that provision will stay in. So Ambassador, we may get a few weeks additional respite.

Ambassador LOWITZ. Yes, I am aware of the fact that there is an additional vote that has to be had. What I tried to just set out was my perception of what happened from the time of the earlier vote and how it seems to have impacted on the activities of the Conference.

Mr. STRATTON. Thank you.

Mrs. HOLT. Will the gentleman yield?

Mr. STRATTON. Yes.

Mrs. HOLT. I just wonder if you would state what your view would be if we put restrictions on the production, restrictions on assembly and storage and deployment and all this stuff, which is possible if we come back for another vote on it, what would be the impact on your negotiating ability?

EFFECT OF RESTRICTIONS ON NEGOTIATIONS

Ambassador LOWITZ. Well, you know, it is easier to say what I think would happen if there is no vote for the commencement of the modernization program than to know specifically what will happen if the program goes forward.

My sense is that without the program there is an absence of an incentive for the Soviet Union to negotiate seriously. They enjoy a significant chemical weapon advantage at this point, and they don't seem to have any reason not to continue that enjoyment. Were we to begin the modernization program then they would be faced with a different set of circumstances and in my judgment that could provide some of the incentive necessary to have them go forward and negotiate more seriously.

Mrs. HOLT. So you think it would make your job a little easier?

Ambassador LOWITZ. Yes, I do.

Mrs. HOLT. Thank you.

Mr. STRATTON. If I could ask another question, Madam Chairman. I was in Germany during the recess, and it was the almost unanimous agreement of all of our troop commanders that it would have to take a miracle from heaven for the allies to agree to the placing of binary weapons in their territory.

Does that point of view apply to the members of this conference who are part of the NATO operations?

Ambassador LOWITZ. Actually, that specific question has not come up within the meetings that I have had with my allied colleagues during the session.

We have not specifically been discussing the possibility of putting these weapons on their territory. My understanding is that the administration has indicated that there are currently no plans for such stationing, and I assume that that has just not been an issue that we have discussed.

Mr. STRATTON. Well, the program that we approved which you indicate represents a significant change does involve the acceptance, either silently or out loud, of these weapons, and that is the one thing that the American commanders in Germany feel very strongly is probably not going to happen, take place in the immediate future, or perhaps not until hell freezes over.

Mrs. BYRON. Mr. Spratt.

Mr. SPRATT. I believe, Mr. Stratton, that the final version of the conference report simply calls for consultation by the President and the Department of Defense with NATO allies, it does not require a tacit acquiescence or any kind of verbal consent, simply consultation, so it has been worn down from what it originally started out to be.

I would like to pick up on the point made because when we did put conditions in the chemical weapons authorization requiring NATO consultation and at least tacit consent by the countries where the binary weapons would be stored or deployed we found that there was tremendous resistance from our NATO Ambassador and from the Department of Defense.

Apparently the issue is a little too hot to handle in NATO. Given that fact, given the fact that it does not appear that the European NATO allies will allow the replacement of the existing unitary

stock with the new binary weapons or deployment and storage of these weapons in the near future, wouldn't it be in our interest to begin considering at least the possibility of a chemical weapons free zone, if we are not going to be able to store our weapons in Europe, don't we have an interest in trying to negotiate with the Soviets a removal of their stored weapons in the Warsaw Pact nations?

Ambassador LOWITZ. Well, but their removal would be of much closer proximity to the area than our removal would be so I don't think that that would solve the problem. I think the problem is best solved by achieving a chemical weapons ban.

Mr. SPRATT. I agree but that may be a long way off and it may never happen. I wonder if we can ever arrive at satisfactory verification provisions and dealing in second best solutions—isn't that something worth pursuing and considering, particularly if we can't keep our chemical weapons there, if we can get them to withdraw theirs back to the Soviet Union?

Ambassador LOWITZ. I think that is a question probably better answered by the military people, but my understanding is that the question of that kind of zone in Europe would pose significant military problems for us.

Mr. SPRATT. I have only heard this secondhand but is it correct that the Social Democratic Party in Germany has made some sort of agreement with the East Germans that if and when the SPD returns to power they will negotiate a chemical weapons-free zone in East Germany?

Ambassador LOWITZ. That has been substantially reported in the European press and I think has been referred to by the East German representative at least at the Conference on Disarmament. There are statements to that effect which I think are geared to a number of different political—domestic issues in West Germany.

Mr. SPRATT. Would you elaborate on what we are asking for in the way of verification not as to destruction of existing stocks, but as to production of new stocks, what are the verification requirements in the treaty drafted by Vice President Bush.

VERIFICATION REQUIREMENTS

Ambassador LOWITZ. We feel that it is necessary in order to assure compliance with a treaty of this sort, keeping in mind that chemical weapons are weapons that can be easily produced and can be produced with very short startup time, that every member or party to the convention have the right when it suspects that there has been a violation of the treaty to go in and make an inspection on very short notice.

Mr. SPRATT. Would it be a consultative commission?

Ambassador LOWITZ. There are provisions for a number of possible steps. This would not be the first thing and perhaps if you wish I could submit a more detailed answer in writing so you would have the entire setup laid out.

Mr. SPRATT. In addition to that sort of ad hoc notice challenge inspection procedure, is there another sort of periodic inspection rate where periodically, say once a year or every 2 years, we would

have a right to inspect areas of the Soviet Union where chemical weapons might be?

Ambassador LOWITZ. There are a number of rights with respect to destruction, in connection with destruction of the stockpile, with destruction of the facilities, so there are a number of different procedures, but it is our judgment that we need this on-site inspection--the challenge inspection—to have the certainty that there will be compliance with the treaty.

Mr. SPRATT. Once destroyed and once we were satisfied they had destroyed their stocks, would we depend upon this short notice challenge provision for ongoing verification?

Ambassador LOWITZ. Obviously, because it would impact on all parties equally it would be something that would not be frivolously used or used as a first step. It is something that we believe is necessary in the process in order to assure compliance. There are also other means, such as routine inspections of the chemical industry and other means of checking.

Mr. SPRATT. Has the Soviet Union made any counterproposal with regard to verification? Do they have a position and offer on the table with respect to the verification?

Ambassador LOWITZ. They have not seen fit to really respond directly to our proposal. They have taken a position primarily of just condemning it out of hand. They do, in things that they have submitted, propose what is really a self-inspection regime, which is really not any inspection. So that is where they stand at this point.

Mr. SPRATT. Thank you.

Mrs. BYRON. Mr. Mavroules.

Mr. MAVROULES. Thank you, Mr. Ambassador.

I would like to pursue the line of questioning put forth by my colleagues who spoke with you previously and also refer to something on page 7.

Do you honestly believe that because the action taken by the House that that really accelerated the Soviet Union to come back negotiating perhaps more objectively on chemical warfare?

Ambassador LOWITZ. Well, it is a question that I have thought about because it is obviously not easy to know for certain what motivates the Soviet Union to take the action they take.

But in looking at the activities that occurred there and what their initial response was, which was an attempt to condemn the action and to resort to polemics, and then a short period of silence, and then a more active involvement, at least the beginnings of some interest in asking questions and trying to get at the issues, I have to conclude that it may well have had some effect.

I think that it is hard to quantify, but I do think that absent something like a resumption of production here there is less likelihood of there being any incentive for the Soviet Union to negotiate when they now enjoy such a substantial advantage.

Mr. MAVROULES. Well the reason I asked the question, you realize, of course, that through the actions taken by the House that the final product, according to my colleague Mr. Spratt, would not be out there until 2 years down the road, 1988.

I wonder if that really was the incentive to bring them back or are you free to share with us what did happen? What did you talk about? What was done that was constructive?

Ambassador LOWITZ. Let me address the first question.

I think that the fact that the actual production would not commence for a period of time is not to say that it doesn't make any effect, because if they have the knowledge that absent an agreement there will be production, there then is this period of time to see whether or not they will be serious about the negotiations. So I think that even with the span of time before the first binary weapon would be produced there is still the incentive factor there.

As far as what the behavior was, there were statements in the plenary sessions, there were statements in the committee, there was a kind of polemical attack on the program, and then a period of time when the Soviet Union just sat back at the committee meetings and did very little, said very little, and then the beginnings of some greater participation again in the committee. What little progress was made was, in fact, made in those last weeks of the committee.

Mr. MAVROULES. Thank you. I just have another question.

I am asking for your judgment on this. On page 7, I want to commend you and the administration for that matter on the so-called comprehensive nuclear test ban, that we would all like to see occur.

In your judgment, if we voluntarily, the United States, let us assume took a position that we weren't just going to test for a period of 6 months without calling the bluff of the Soviet Union, what would that do to our national security if anything? Would you care to share your views with us?

Ambassador LOWITZ. I don't feel competent to make that kind of military judgment. Perhaps that is a question also that Dr. Barker would be better prepared to answer.

Mr. MAVROULES. Thank you.

Mrs. BYRON. I think next we should have Dr. Barker's testimony. Ambassador, how is your timeframe?

Ambassador LOWITZ. It is fine.

Mrs. BYRON. I think we will do that and then go into a closed session.

Ambassador LOWITZ. Fine. Thank you.

STATEMENT OF DR. ROBERT BARKER, DEPUTY ASSISTANT DIRECTOR, BUREAU OF VERIFICATION AND INTELLIGENCE, U.S. ARMS CONTROL AND DISARMAMENT AGENCY

Mrs. BYRON. You may proceed.

Dr. BARKER. Thank you, Madam Chairman.

Good afternoon. I am happy to appear before you this afternoon to talk about the administration's nuclear testing arms control policy. Later on in these hearings you will be hearing more in detail from both the Department of Defense and the Department of Energy on some of the more technical aspects of these issues.

I would like to start off that process by talking a little bit about U.S. arms control policy in this area and I would like to abbreviate my remarks and submit more detailed remarks for the record.

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NUCLEAR TESTING ARMS CONTROL POLICY

Nuclear test limitations have played and will continue to play a role in the arms control policy of the United States. That role will be one consistent with promotion of national security. There is apparently strong congressional interest in three areas of nuclear test limitations policy, the signed but unratified Threshold Test Ban Treaty, the TTBT, and its companion Peaceful Nuclear Explosions Treaty, PNET; second, a comprehensive test ban or [CTB] treaty; and third, the recent nuclear test moratorium proposal of the Soviet Union.

I have noted that in Mrs. Byron's opening statement she expressed the belief these hearings should provide the panel with a better understanding of the issues involved in these measures.

I join in that hope and hope that that understanding will go beyond this panel to the Congress as a whole.

U.S. policy on each of the three issues of nuclear testing policy is clear. The U.S. positions have evolved from careful evaluations of all relevant issues, giving full consideration to national security and the fundamental arms control requirements that any treaty to which the United States is a party must be effectively verifiable.

I will summarize briefly the U.S. position. Careful study led us over 4 years ago to conclude that the Threshold Test Ban Treaty in its current form is not effectively verifiable. Ratification of this treaty before verification improvements can be negotiated with the Soviet Union is not in the national interest of the United States. The United States is committed to achieving effective verification of the Threshold Test Ban Treaty. The United States has been very committed to trying to achieve those improvements in verification.

In 1983, in 1984, on a number of occasions, we sought to engage the Soviet Union in discussions on verification improvements for the Threshold Test Ban Treaty and the Peaceful Nuclear Explosions Treaty.

In his address to the United Nations General Assembly on September 24, 1984, President Reagan proposed an exchange of visits to allow Soviet experts to come to the U.S. nuclear test site and U.S. experts to go to a Soviet nuclear test site to measure directly the yields of nuclear weapons tests. Those suggestions, those attempts to meet with the Soviet Union, were all rebuffed.

On January 29, in an unprecedented move, the President clearly demonstrated his willingness to go the extra mile in order to begin a process that might ultimately lead to effective verification of the Threshold Test Ban Treaty. The President invited the Soviet Union to send experts, with any instrumentation devices they deem necessary, to measure the yield of a nuclear test at the U.S. test site. The invitation was without preconditions. The Soviets have yet to accept even this no-strings offer.

Returning to the subject of the comprehensive test ban, a thorough reevaluation almost 4 years ago led the administration to reaffirm that a comprehensive test ban remains a long-term objective of the United States, an objective we will seek to pursue within the context of broad, deep, and verifiable arms reductions; maintenance of a credible nuclear deterrent; expanded confidence building measures and improved verification capabilities.

There is much to be accomplished with respect to each of these objectives; it is not yet time to undertake negotiations of a comprehensive test ban. Returning to the moratorium, the United States long ago determined that our interests cannot be served by participation in an uninspected nuclear test moratorim such as the Soviets have proposed.

This judgment is soundly based on historical experience, most acutely when the Soviets broke the previous 1958–1961 nuclear testing moratorium by conducting some 40 atmospheric tests in a 2-month period. In a cogent way, President Kennedy summarized the lesson learned when he said in 1962: "We now know enough about broken negotiations, secret preparations, and the advantage gained from a long test series never to offer again an uninspected moratorium."

This administration is committed to effective arms reduction agreements and to the ultimate objective of the total elimination of nuclear weapons.

We seek to achieve the elimination of nuclear weapons while striving to strengthen and maintain the security and stability the world desires.

In this context we are convinced that reductions in the offensive nuclear weapons of the Soviet Union and the United States must have our highest priority. The return earlier this year of the Soviets to the negotiating table have given us the opportunity to resume our effort in this regard. In seeking deep reductions we will demand equality and require effective verification of any resulting treaty.

These criteria are critical for strategic stability. It is important to understand that our reliance on a credible nuclear deterrent has an essential bearing on the timeframe within which consideration can realistically be given to negotiations of a comprehensive test ban.

The current directors of the nation's two nuclear laboratories have stated, "Continued nuclear testing is absolutely essential to insure the reliability of our nuclear weapons." Later in these hearings, representatives from the Department of Defense and the Department of Energy will address in greater detail this relationship between nuclear weapon reliability and testing.

Ultimately, however, full appreciation of the role which nuclear weapons testing places in the maintenance of our national security requires access to classified information.

Fortunately, the entirety of this information is available to those in Congress who seek it. The administration's central objective is radical reductions in the number of existing nuclear weapons, with the ultimate goal of ridding the world of the nuclear threat.

Congressional support for U.S. efforts to achieve such reductions in the current Geneva negotiations has been substantial and we believe such support is not lost on the Soviets.

Clearly, where the administration and Congress are seen working together, our chances for success with the Soviets are greatest. We welcome enthusiastic and knowledgeable congressional support for our nuclear test limitations arms control policy.

Thank you.

PREPARED STATEMENT OF DR. ROBERT BARKER

Good afternoon, I am happy to appear before you this afternoon for the purpose of addressing the Administration's nuclear testing arms control policy.

Nuclear test limitations have played and will continue to play a role in the arms control policy of the United States. That role will be one consistent with the promotion of national security. The Congress of the United States in establishing the Arms Control and Disarmament Act has noted that, "Arms control and disarmament policy, being an important aspect of foreign policy, must be consistent with national security policy as a whole."

There is apparently strong current Congressional interest in three areas of nuclear test limitation policy: the signed but unratified Threshold Test Ban Treaty (TTBT) and its companion Peaceful Nuclear Explosions Treaty (PNET); a Comprehensive Test Ban, or CTB Treaty; and the recent nuclear test moratorium proposal of the Soviet Union.

U.S. policy on each of these issues is clear, the U.S. positions have evolved from careful evaluation of all relevant issues, giving full consideration to national security and the fundamental arms control requirement that any treaty to which the U.S. is a party must be effectively verifiable.

Careful study led us, over four years ago, to conclude that the Threshold Test Ban Treaty, in its current form, is not effectively verifiable; ratification of this Treaty before verification improvements can be negotiated with the Soviet Union is not in the national interest of the United States. The United States is committed to achieving effective verification of the TTBT.

Similarly, thorough evaluation has led the Administration to reaffirm that a comprehensive test ban remains a long-term objective of the United States; an objective which we will seek to pursue within the context of broad, deep and verifiable arms reductions, maintenance of a credible nuclear deterrent, expanded confidence-building measures and improved verification capabilities. There is much to be accomplished with respect to each of these objectives; it is not yet time to undertake negotiation of a comprehensive test ban.

The United States long ago determined that our interests cannot be served by participation in an uninspected nuclear test moratorium, such as the Soviets have proposed. This judgment is soundly based on historical experience, most acutely when the Soviets broke the previous 1958-1961 nuclear testing moratorium by conducting some 40 atmospheric tests in a two-month period. In a cogent way, President John F. Kennedy summarized the lesson learned when he said in 1962:

"We know now enough about broken negotiations, secret preparations, and the advantages gained from a long test series never to offer again an uninspected moratorium."

This Administration is committed to effective arms reductions agreements and to the ultimate objective of the total elimination of nuclear weapons.

The President has said,

"My central arms control objective has been to reduce substantially and ultimately to eliminate nuclear weapons and rid the world of the nuclear threat. Toward that end, the United States has proposed in Geneva radical reductions in the number of existing nuclear weapons. This, I believe, is the most direct and best course to pursue if we are to eliminate the danger of nuclear war.

"At the same time, I believe that verifiable limitations on nuclear testing can play a useful, although more modest, role."

We seek to achieve the elimination of nuclear weapons while striving to strengthen and maintain the security and stability which the entire world desires. In this context, we are convinced that deep reductions in the offensive nuclear weapons of the Soviet Union and the United States must have our highest priority. The return, earlier this year, by the Soviets to the negotiating table has given us the opportunity to resume our effort in this regard. In seeking deep reductions we will demand equality and require effective verification in any resultant treaty. These criteria are critical for strategic stability.

Furthermore, we and the whole world must be convinced that agreements negotiated are agreements to be complied with. Unfortunately, the Soviet record on compliance, rather than giving increased confidence in arms control, gives rise to grave concerns. As the President has said:

"Soviet noncompliance is a serious matter. It calls into question important security benefits from arms control, and could create new security risks. It undermines the confidence essential to an effective arms control process in the future."

The Threshold Test Ban Treaty offers an area where the Soviets can demonstrate that they take arms control seriously, that they too recognize that the true benefits

of arms control can only be achieved when all parties are secure and confident that the treaty terms are being complied with. The United States must stand by its standard of effective verification with respect to the Threshold Test Ban Treaty; anything less would undermine our ability to demand effective verification in this and other treaty areas, as well as being a disservice to the objectives of the TTBT.

There is almost universal acceptance in this country that true treaty verification cannot be based upon trust. Yet the TTBT, in the name of verification, offers only an exchange of data which, while appearing extensive, contains not a single meaningful element that can be independently validated by the United States. There is no ability for us to independently measure any of the important parameters upon which our estimates of Soviet yield are based.

Those who negotiated and signed the TTBT, with today's hindsight, were optimistic. They believed that our understanding of the science of seismology was good enough for us to determine Soviet nuclear weapon test yields to an accuracy sufficient to protect U.S. security. They also expected that the Soviets would comply with the treaty. Since 1976, when the Soviet Union claimed that it would abide by the provisions of the TTBT, two things have happened to change that earlier perspective. First, we have had to recognize that we cannot determine Soviet nuclear yields with the accuracy required for effective verification. Secondly, we have had to conclude that it is likely that the Soviets have violated their legal obligation with respect to the TTBT. As reported by the President in 1984 and 1985, in the Congressionally mandated reports on Soviet noncompliance with arms control agreements, while ambiguities in the pattern of Soviet testing and verification uncertainties continue to exist, evidence available leads to the conclusion that Soviet nuclear testing activities for a number of tests constitute a likely violation of the 150 kiloton limit.

The TTBT cannot now be effectively verified. The Soviets are in likely violation of their legal obligation to limit test yields to 150 kilotons and below. Verification must be improved before the President could in good faith determine that this treaty is in the national security interest of our nation and before he could thus seek the advice and consent of the Senate to its ratification.

The Administration has not been passive on this issue. In 1983 and 1984 we sought on a number of occasions to engage the USSR in discussions on verification improvements for the TTBT and PNET. In addition, in his address to the United Nations General Assembly on September 24, 1984, President Reagan proposed an exchange of visits to allow Soviet experts to come to the U.S. nuclear test site and U.S. experts to go to a Soviet nuclear test site to measure directly the yields of nuclear weapons tests. We recognize that any improvements to verification of the TTBT must be mutually arrived at—must be negotiated. They cannot be dictated by the United States and imposed upon the Soviet Union. For this reason we have not approached the Soviets with a unilateral, non-negotiable demand; we have instead sought an honest exchange of technical views on how verification can be improved. Regrettably the Soviets have thus far rejected all our proposals to meet and confer on verification improvements.

On July 29, in an unprecedented move, the President clearly demonstrated his willingness to go the extra mile in order to begin a process that might ultimately lead to effective verification of the TTBT. The President invited the Soviet Union to send experts, with any instrumentation devices they deem necessary, to measure the yield of a nuclear test at the U.S. test site. The invitation was without preconditions. The Soviets have yet to accept even this "no strings" offer.

The Soviets can have no doubt about the Administration's position—effective verification must precede ratification. We would welcome Congressional endorsement and support for the Administration's efforts to strengthen verification measures as a precondition for ratification.

U.S. policy with respect to the Comprehensive Test Ban Treaty is no less clear. We would all like to reduce and eventually eliminate our dependence upon nuclear arms. However, as the current discussion of the Strategic Defense Initiative has highlighted, many Americans, as well as American allies are seeking assurance that the U.S. nuclear deterrent will be effectively maintained until a better alternative is available. Today, this requires nuclear testing.

As we modernize our nuclear deterrent to make it more survivable and better able to contribute to stability, we will require some new nuclear weapons to arm those new weapon systems. In the interest of stability we must also retain our confidence that our deterrent is reliable. And, while the safety and security record of our nuclear forces is unparalleled, as technologies come available which can make them even more safe and secure, who would bear the burden of not incorporating those improvements into our nuclear weapons? Weapon modernization, confidence in the

deterrent, and enhanced nuclear weapon safety and security are today all dependent upon nuclear testing.

It is important to understand that our reliance on a credible nuclear deterrent has an essential bearing on the time frame within which consideration can realistically be given to negotiation of a CTB. The current Directors of the nation's two nuclear laboratories have stated: "Continued nuclear testing is absolutely essential to ensure the reliability of our nuclear weapons." Later in these hearings, representatives from the Department of Defense and the Department of Energy will address in greater detail this relationship between nuclear weapon reliability and testing. Ultimately, however, full appreciation of the role which nuclear weapons testing plays in the maintenance of our national security requires access to classfied information. Fortunately, the entirety of this information is available to those in Congress who seek it.

As with the case of the TTBT, effective verification is also a necessary condition for a Comprehensive Test Ban Treaty. Today it does not exist. The U.S. has spent hundreds of millions of dollars on research to establish the basis for verifiable nuclear test limitations. This Administration is continuing that search. As part of that effort we have actively supported multilateral involvement in nuclear test ban verification studies at the 40-Nation Conference on Disarmament in Geneva.

In sum, the ingredients are not yet available for comprehensive test ban negotiations. Further, we must not allow a search for a CTB to become once again a diversion and surrogate for negotiations of deep and meaningful arms reductions. The signatories of the Non-Proliferation Treaty sought in Article VI of that Treaty the elimination of the discrimination that is manifest in the differentiation between nuclear weapon states and non-nuclear weapon states. Elimination of the distinction can only be achieved with the elimination of nuclear weapons; radical reductions in the number of offensive nuclear weapons should be the first step in that direction.

A nuclear-testing moratorium, such as that proposed by the Soviets, is an invitation to a comprehensive test ban with no semblance of verification. The lack of verification is sufficient basis for rejection. Moratoria are never acceptable substitutes for negotiated, effectively verifiable arms control agreements. Further, the reasons for rejecting a moratorium are identical to those for rejecting the negotiation of a comprehensive test ban at this time.

President Kennedy's 1962 statement on a nuclear testing moratorium, when quoted more extensively, details his extensive appreciation of the threat which is posed by such a moratorium.

"We know now enough about broken negotiatons, secret preparations, and the advantages gained from a long test series never to offer again an uninspected moratorium. Some may urge us to try it again, keeping our preparations to test in a constant state of readiness. But in actual practice, particularly in a society of free choice, we cannot keep topflight scientists concentrating on the preparation of an experiment which may or may not take place on an uncertain date in the undefined future. Nor can large technical laboratories be kept fully alert on a standby basis waiting for some other nation to break an agreement. This is not merely difficult or inconvenient—we have explored this alternative thoroughly, and found it impossible of execution."

With this country's experience with a nuclear-testing moratorium it is almost incredible that any, even the current Soviet leadership, could believe we would find a moratorium to be a serious alternative to real arms control.

The Administration's central objective is radical reductions in the number of existing nuclear weapons, with the ultimate goal of ridding the world of the nuclear threat. Congressional support for U.S. efforts to achieve such reductions in the current Geneva negotiations has been substantial and we believe such support is not lost on the Soviets. Clearly, where Administration and Congress are seen working together, our chances for success with the Soviets are greatest. We welcome enthusiastic and knowledgeable Congressional support for our nuclear test limitation arms control policy.

This completes my prepared remarks. I will be happy to answer your questions.

Mrs. BYRON. Let me pursue a little bit a statement you made in your last paragraph, where the administration and Congress are seen working together our chances for success with the Soviets are the greatest. Do you find that when there seems to be in the news media a perception that there is a difference within Congress or between Congress and the administration that hinders negotiations and the talking process?

Dr. BARKER. We have learned that the Soviets have a great deal of patience; they are willing to wait a very long time to achieve their objectives. Whenever they see disarray within the American Government and they see one point of view potentially providing them an opportunity to delay, I think they will take that opportunity and fail to face up to the priorities that we would like them to address.

Mrs. BYRON. Following that a little bit further, the concern of almost everyone is the difficulty in verification but above and beyond the difficulty in verification, have we moved forward on any other area of negotiations taking that aside? Do you see any progress at all?

Dr. BARKER. At the current time—the three areas that I have mentioned, with respect to the Threshold Test Ban Treaty, the sole remaining issue is one of verificaton. We signed the treaty in 1974. I think at the same time, and with hindsight we can say with a certain amount of optimism, we believed that we would have the basis for effectively verifying that treaty and also believed that the Soviets would adhere to its provisions.

Unfortunately, events since then have led us to conclude that we cannot effectively verify that treaty. However, we are still living up to its terms, we still stand ready to ratify that treaty provided that we can indeed achieve the conditions for effective verification. So far we have been rebuffed time and time again as far as improving the verification provisions. With respect to a comprehensive test ban treaty there are prior conditions before it would be time to negotiate with the Soviet Union on that subject.

One of those areas is a need for improved verification over and above what current technology can offer us. This country has spent in the neighborhood of half a billion dollars over the past decades to improve our ability to verify a comprehensive test ban treaty. We continue to pursue improved verification not only on our own but also in the context of the 40-nation conference that Ambassador Lowitz just spoke of.

Mrs. BYRON. Mrs. Holt.

Mrs. HOLT. Thank you.

Dr. Barker, isn't verification the bottom line? Really, we can't negotiate any kind of effective treaty in anything if we can't verify it.

Do you see any hope that the Soviets would ever agree to real verification in the kind of closed society that they have?

Dr. BARKER. I think we have to try, Mrs. Holt.

Mrs. HOLT. I agree.

VERIFICATION

Dr. BARKER. While some of us may be optimistic and some very pessimistic about the Soviets ever agreeing to conditions which would allow for effective verification across a broad range of treaty areas, the organization of which I am a part; namely, the Verification and Intelligence Bureau of the Arms Control and Disarmament Agency, our primary objective is to attempt to design verification measures which offer the hope of effective verification should the Soviets accept them, and also to try to influence the

treaty drafting process so that we can write treaties which have a hope of being verified.

Mrs. HOLT. I certainly agree that you have to be an optimist to have the job that you have, just as we have to be optimistic to come into Washington every day and get our brains kicked out over here. I really have decided that there isn't a lot of hope in talking with people in the Soviet Union. They make no bones about it. You have to devise ways to verify it on your own or else let us verify it for you and tell that it is all right.

And there is no way that we can go underground with the large land mass they have. It seems to me that unless we show you or get that political goodwill that they keep talking about, it is going to be impossible to verify it.

Dr. BARKER. I would only add to those comments, I think, the worst thing we can do is to give up the standard of effective verification. That is why the Threshold Test Ban Treaty is such a significant issue. One runs into people who say, "Does it really matter if the Soviets cheat on the Threshold Test Ban Treaty?"

One finds people arguing that particular issue. I think there are significant security elements to the question, but over and above that, I think for us to abandon the standard of effective verification in any treaty area is a grave mistake, and certainly we should not begin the erosion of that process by any attempt to ratify the Threshold Test Ban Treaty in its current form.

Mrs. HOLT. I certainly agree with you, and I commend you for the efforts that you are putting forth. We thank you very much.

Dr. BARKER. Thank you.

Mrs. BYRON. Mr. Ray.

Mr. RAY. No questions.

Mrs. BYRON. Mr. Stratton.

Mr. STRATTON. No questions.

Mrs. BYRON. Mr. Mavroules.

Mr. MAVROULES. Thank you. I just have one question.

I am not sure that you can answer that in open session. You can take a shot at it. I do see that on future witnesses that that question is going to be asked.

I am not advocating this, so don't get me wrong. There is a lot of talk about, why doesn't the United States take the initiative and show and demonstrate to the rest of the world that we mean what we say when we talk about a comprehensive test ban treaty.

What would happen, in your judgment, if you can share with us your views, if we were to take that initiative for 6 or 9 months? We are not going to do any testing at all. We call the bluff of the Soviet Union. Let's see if they will follow suit. Would that have any adverse effects upon our national security?

Dr. BARKER. What I would like to do is return to President Kennedy's remarks in more detail than I did in my opening comments.

Remember, the Soviet offer for a moratorium is not just for 3 or 6 months, but is an unending moratorium as long as both sides agree, and after the 1958–1961 experience, President Kennedy summarized it in 1962 when he really detailed some of the real problems associated with a moratorium.

He began with the sentence I read a moment ago. "We know now enough about broken negotiation, secret preparations and the

advantages gained from a long test series, never to offer again an uninspected moratorium."

Some may urge us to try it again, keeping our preparations to test in a constant state of readiness, but in actual practice, particularly in a society of free choice, we cannot keep topflight scientists concentrating on the preparation of an experiment, which may or may not take place, on an uncertain date in the undefined future, nor can large technical laboratories be kept fully alert on a standby basis waiting for some other nation to break an agreement.

This is not merely difficult or inconvenient. We have explored this alternative totally and found it impossible. The administration has devoted a great deal of study to the issue on a comprehensive test ban and has concluded and has made a commitment to it as a long-term goal, and has, I think, clearly articulated the relationship of nuclear testing to the maintenance of the nuclear deterrent and a nuclear test moratorium is merely a CTB without any separate plans of verification.

We should have only had to have the lesson taught once; namely, in the 1958–1961 period, never to even consider it again, in my opinion.

Mr. MAVROULES. I have no argument with what President Kennedy had stated. Any initiative on my part as an individual member would have to be bilateral—let there be no question about that, but you still haven't answered my question.

In your judgment, if we were to take that initiative as some have stated in the Congress, that we take that, universal, unilateral initiative, what would that do to our national security, our 9 or 12 months?

Dr. BARKER. It would clearly start the process of erosion that President Kennedy referred to. The longer a nuclear test ban were in effect, the greater the significance of that erosion, and a moratorium without verification would provide us with absolutely no assurance that the Soviets were living up to their part of the bargain.

A moratorium has to be the worst of all possible deals. When it comes to consideration of nuclear test limitation treaties, or nuclear test limitation agreements.

Mr. MAVROULES. Thank you.

Mrs. BYRON. Mr. Klein, do you have any questions in open session.

Mr. KLEIN. Not in open session.

Mrs. BYRON. Mr. Mansfield.

Dr. MANSFIELD. No.

Mrs. BYRON. Mr. Scrivner.

Mr. SCRIVNER. No.

Mrs. BYRON. I think, then, we have the authority to go into closed session, which we will do at this time.

[Whereupon, at 3:10 p.m., the subcommittee proceeded into other business.]

OVERVIEW OF CURRENT ARMS CONTROL POLICY

HOUSE OF REPRESENTATIVES, COMMITTEE ON ARMED SERVICES, SPECIAL PANEL ON ARMS CONTROL AND DISARMAMENT OF THE PROCUREMENT AND MILITARY NUCLEAR SYSTEMS SUBCOMMITTEE

Washington, DC., Thursday, September 12, 1985.

The special panel met, pursuant to call, at 10:15 a.m., in room 2212, Rayburn House Office Building, Hon. Beverly Byron (chairman of the special panel) presiding.

STATEMENT OF HON. BEVERLY B. BYRON, A REPRESENTATIVE FROM MARYLAND, CHAIRMAN, SPECIAL PANEL ON ARMS CONTROL AND DISARMAMENT OF THE PROCUREMENT AND MILITARY NUCLEAR SYSTEMS SUBCOMMITTEE

Mrs. BYRON. Good morning.

The panel will resume its oversight hearings on arms control and disarmament matters. On September 10, the panel received excellent briefings from Ambassador Robert Blackwill and Ambassador Donald Lowitz on the negotiations of the Mutual and Balanced Force Reductions [MBFR] negotiations in Vienna and the activities of the Conference on Disarmament [CD] in Geneva, including negotiations toward a comprehensive chemical weapons ban.

Also, on September 10, the panel received an initial briefing on verification requirements from Dr. Robert Barker from the U.S. Arms Control and Disarmament Agency [ACDA]. Although we would have preferred to set the tone for this series of hearings with an overview presentation by the Honorable Kenneth Adelman, the Director of the U.S. Arms Control and Disarmament Agency, the limited time available for panel hearings, and Mr. Adelman's previous commitments, would not permit his appearance until today.

At this point, I want to welcome Mr. Adelman on behalf of the panel.

In my letter inviting Mr. Adelman to appear at these hearings, I mentioned several areas that I believe to be of particular interest to the members of the panel. Among these issues were the following:

The Nuclear Nonproliferation Treaty [NPT], the NPT review conference scheduled to conclude on September 24, and the perceived connections between the NPT and various test ban proposals.

The interim restraint policy, as announced by the President's statement and message to the Congress on June 10, 1985, and the "appropriate and proportionate" responses to Soviet noncompliance with arms control obligations as contained in reports to the Congress in January 1984 and February 1985. In this connection, the

panel will be most interested to hear what, if any, corrective actions the Soviet Union has agreed to take as a result of negotiations within the Standing Consultative Commission [SCC].

The administration's policy with respect to the "offers" reported to have been made by General Secretary Gorbachev which appear to be external to the ongoing formal negotiations. These include: a moratorium on nuclear testing; a moratorium on ASAT testing; and establishment of nuclear-free and chemical weapons-free zones in Europe.

The President's certification to the Congress with respect to testing the U.S. ASAT system; and

The administration's position with respect to House Joint Resolution 3 and H.R. 3100 dealing with ratification of the Threshold Test Ban Treaty [TTBT], the PNE Treaty, and with a freeze on various weapons systems, respectively.

During the afternoon meeting today, the panel will meet in closed session to hear briefings from Ambassadors Kampelman, Tower, and Glitman on the first two rounds of negotiations in Geneva on strategic nuclear arms, intermediate range nuclear forces, and defense and space arms issues.

Welcome, Ambassador Adelman. We look forward to your testimony this morning.

Mr. ADELMAN. Thank you very much, Chairman Byron.

Mrs. BYRON. Before you testify, Mrs. Holt will give some opening remarks.

STATEMENT OF HON. MARJORIE S. HOLT, A REPRESENTATIVE FROM MARYLAND, RANKING MINORITY MEMBER, SPECIAL PANEL ON ARMS CONTROL AND DISARMAENT OF THE MILITARY PROCUREMENT AND MILITARY NUCLEAR SYSTEMS

Mrs. HOLT. Let me just say a couple of things. I welcome you and want to express my personal appreciation to you for the outstanding manner in which you have handled a very difficult job. We have had you before the panel a number of times. You have stayed in touch with us and been extremely supportive in providing the information that we need.

Let me mention a couple of things that haven't been fully explained.

First, it was asked what harm would it do to accept the Soviet offer of an unnegotiated moratorium on nuclear testing for a period of only 6 months. What exactly would a 6-month unnegotiated moratorium accomplish?

A second issue was not addressed. That issue is: So long as the United States, NATO and our Pacific allies depend upon nuclear weapons as a U.S. nuclear deterrent to conventional or nuclear war, does a comprehensive test ban—that is no testing at all—make any sense whatever even if such a test ban were to be 100 percent verifiable? In the absence of some movement toward worldwide nuclear disarmament, it seems that this issue far overrides the verification and proliferation issues. Yet, this issue is seldom mentioned.

I would like to have your view and the Agency and administration view on this particular question.

Thank you.

Mrs. BYRON. Ambassador Adelman, you may proceed.

STATEMENT OF HON. KENNETH ADELMAN, DIRECTOR, U.S. ARMS CONTROL AND DISARMAMENT AGENCY

Mr. ADELMAN. It is always a pleasure to appear before this panel. Let me just put my prejudices forward. It is one of my favorite congressional groups and certainly one with which I cherish the relationship. I welcome your advice and counsel on these issues.

Ever since the time that I served in the trenches in New York with Sam Stratton where he really led the way on the second special session on Disarmament for the United States, I have felt a certain kinship with this group and it has extended beyond Congressman Stratton and throughout the whole group, so I welcome this opportunity.

Second, let me say that I think it is a very good thing and a sign of the seriousness of this group for the group to be planning to go to Geneva and Vienna.

I have always been, I guess, a minority in Washington that thinks congressional travel is positive, and that when you have Congressmen go over to see the situation firsthand, there is a great educational function to be served. I know that despite all the trepidations that are usually associated with having congressional involvement in arms control, by my own evaluation, it has been a very positive development. Why is that? Because you have a group of Congressmen, first of all, that are serious about the issue, taking the trouble to go over.

Second, they do virtually nothing else for a day or two but learn about the arms control issue. I think anybody learning about arms control issues realizes not only the seriousness of the issue, but the complexities of the issue and the Soviet machinations on arms control and it moves from a plane of a general when are we going to have an arms control agreement, to when are we going to get the Soviets to be serious about having deep reductions, leaving the stability of the United States and our friends and allies in the world in better shape; an arms control agreement can help in that regard or can hurt in that regard. So I think that this panel's upcoming trip to Geneva and Vienna is a very positive thing.

I have a prepared statement that I would like to submit for the record. It was carefully done. I still maintain it is worth careful reading and it really has the main points of what we hope to do.

I would like your permission to submit it for the record and we will be happy to answer questions on it. It takes a tone of being realistic, but hopeful, in the upcoming rounds.

I think I can cover most of the points in the testimony by going through, Madam Chairman, your agenda on page 2.

Let me make a few points on each of your particulars and then open it up for questions.

On the Nuclear Nonproliferation Treaty and the review conference, I was there for the beginning of the first week. The tone there was good. By and large, the developing countries would like to have the United States and the Soviets do more on arms control, the article VI controversies.

In my statement, the U.S. statement to the conference, we said that we would like to see more accomplished in arms control and that there is no monopoly among Third World countries for disappointment in arms control. We made clear that we share that disappointment. We think the Nonproliferation Treaty is very helpful to our security and to the security of others around the world, including its 130 states party to the NPT. We have been working with the Soviets so there are not polemics at the conference. This is one area where we share a great deal with the Soviet Union and will continue to share a great deal.

On the interim restraint policy, I don't know if I have a lot to add to what the President announced. He is saying by and large that we, the administration, are going the extra mile, not getting out of SALT II, even though the Soviets are clearly violating that treaty.

The compliance issue is one of the big issues hanging over arms control today. The Soviet Union—as this administration has reported to you and to others in the Congress—is currently, or has been, in violation of the Geneva Protocol and the Biological and Chemical Weapons Convention, the Limited Test Ban Treaty, the Threshold Test Ban Treaty, the ABM Treaty, the SALT II treaty, and the Helsinki accords and that is just about the whole kit and caboodle in arms control.

We have raised these questions with the Soviets. We would like to see their compliance record really be much better, obviously, and we have told them over and over again that to be serious about arms control is to be serious about compliance. Otherwise, arms control is not bilateral, but it is a form of unilateral disarmament. If one side adheres, like the United States, and the other side frequently violates, like the Soviet Union, then arms control loses the security benefits it has, and by and large will not be a useful instrument in the future.

I think the most serious violations were, of course, the Krasnoyarsk radar and probably the SS-25, and I will be happy to go into detail on those issues, if you would like.

Third, with regard to the offers that have been made external to the ongoing formal negotiations by Secretary General Gorbachev—a moratorium on nuclear testing, ASAT, nuclear-free zones and chemical weapons-free zones—there are certain things in common, Madam Chairman, with all these elements.

One thing glaringly in common is that they have virtually no effective verification provisions to any of them, so you are buying arms control on trust and really buying a pig in a poke if we go down this path. If I have heard any message from other committees with which I have had the privilege of dealing in the Congress it is that arms control has got to have effective verification provisions.

A moratorium on nuclear testing would just not have verification provisions. To get to Mrs. Holt's question, "What harm would it do?" I think that a temporary moratorium would give people the idea that we were really accomplishing something in the arms control realm; it would create all kinds of pressures to continue this Soviet-style moratorium longer and then we would get into the two problems that we have had with a comprehensive test ban: the one

question on verification, especially low yields; and second, as you so eloquently said, Mrs. Holt, if you are continuing to rely on nuclear weapons for ultimate security of the West, then doesn't it make sense to be sure that there is some degree of reliability in this area.

So we have put those two caveats on a statement that a CTB remains a long-term goal of the United States, but not something realizable in the near term.

With regard to the President's certification to the Congress with respect to ASAT, the Congress has given us the standards, those standards are an ASAT arms control agreement that will be, (a) verifiable; and (b) in the national interest. Thus far, we have not identified any specific ASAT arms control proposal that would meet the two criteria that Congress laid out, although we are talking with the Soviets about the general subject of space weapons and defensive systems.

I think that in closed session, probably this afternoon, the negotiators could go into more detail with that because I would not want to get into the specifics of the negotiations in open session.

Last, with regard to the ratification of the Threshold Test Ban Treaty, a freeze on various systems and the House joint resolution on ratifying the Threshold Test Ban Treaty and the PNE Treaty, we have strongly opposed that resolution because we believe those two treaties which we have signed, and are adhering to, need to have better verification provisions negotiated before we request the Senate's advice and consent to ratification.

In fact, over the years, we and other administrations have expressed concern about Soviet nuclear testing activities as they relate to the TTBT.

To create a precedent of ratifying a treaty that the Soviets are likely violating even before ratification, I think, would be to set a very bad precedent.

Let me end there and spend time on your questions and thoughts on this.

Mrs. BYRON. Thank you very much.

PREPARED STATEMENT OF HON. KENNETH. L. ADELMAN

Mrs. Byron, it is always a pleasure to appear before the Arms Control panel to discuss the Administration's arms control program. One week from today the United States and the Soviet Union resume negotiations in Geneva on Nuclear and Space Arms. Today, I would like to address our approach to the third round and some of the fundamental issues which underlie this complex set of negotiations, and to brief you on the on-going Non-proliferation Treaty Review Conference, a forum whose objectives are equally critical to the national and international security.

As an Administration spokesman, I hesitate to use the somewhat trite phrase "realistic but hopeful" in characterizing our expectations for the third round of Geneva negotiations. Yet I believe realistic and hopeful is a fair statement about our approach to Round III.

Why should we be hopeful? First, the US continues to make progress toward completing a long-overdue nuclear forces modernization program without which there would be little incentive or reason for the Soviet Union to negotiate genuine arms reductions. Second, at this vantage point, it appears that the Soviet Union may have, for the first time in a number of years, a stable leadership without which it would be difficult to negotiate agreements entailing long term commitments. Third, the November meeting between President Reagan and General Secretary Gorbachev clearly represents an opportunity. Although there will be several important items on the agenda, it is obvious that arms control is among the key ones. We would hope that the Soviets will be prepared to join in injecting momentum to the arms control process.

Finally, it is time to negotiate. We are about where we had expected to be after only two rounds of negotiations of such importance and complexity. While there is little convergence of views, each side now has a better understanding of the other side's position. The President has provided our negotiators—Ambassadors Kampelman, Tower and Glitman—with the necessary flexibility and scope to negotiate an equitable, verifiable, agreement regarding force reductions—and I share the President's full confidence in our negotiators. We have specific proposals for significant reductions on the table—and have had for some time. On a number of occasions, the Soviet Union has publicly announced that it is prepared to offer proposals for radical reductions, but only if we will stop SDI research. That is an unacceptable precondition. We hope the Soviets will be ready for serious negotiating, both considering our concrete proposals and offering equally concrete proposals of their own, when the talks resume.

Given this basis for hope, why should we temper it with necessary realism? The Soviet approach to the negotiations is no surprise, but rather, it has confirmed our view of traditional, long-term Soviet arms control objectives. Their primary aims are to preserve substantial advantages in nuclear offensive forces fo them and to stop the US SDI research program, which could counter or negate many to their advantages. They have combined tough bargaining at the negotiating table with an extensive public propaganda campaign aimed at undermining support for US programs.

The centerpiece of this Soviet strategy has been their moratorium proposals that would lock in Soviet advantages in INF, ASAT and nuclear testing. They offer largely unspecified reductions later, and as noted, continue to link any progress in the area of offensive reductions to US acceptance of the Soviet approach to defense, space, and INF issues. This unconstructive approach with its unacceptable preconditions has been expressed in its most polemical form by Soviet allegations that the US is failing to honor the commitment in the January US-Soviet Joint Statement to address the complex of space and nuclear issues in their interrelationship, and thus is reneging on its commitment to prevent an arms race in space.

The accusation is clearly untrue. We fully recognize and are willing to discuss all aspects of the interrelationship between offensive and defensive forces, but do not believe that progress in one area should be held hostage to progress in other areas.

As we approach the new round of talks, it behooves us to keep the negotiation in perspective, to remind ourselves of the fundamental issues that underlie our current efforts. The January agreement with the Soviets to begin new negotiations at Geneva was a useful first step, but to consider it simply as a resumption of formal dialogue misses the real significance of the process that we have embarked upon.

The United States views the Geneva forum as one where we can address the full spectrum of means for enhancing stability and reducing the risk of war. Our highest priority is—and it should be—reductions in offensive nuclear forces. However, offensive and defensive systems are closely related and cannot be considered in isolation from each other.

For example, offense and defense were considered together in SALT I. At the time the ABM Treaty was negotiated, the United States believed that deterrence could best be assured if each side were able to maintain the ability to threaten retaliation against any attack and thereby impose on an aggressor costs that were clearly beyond any potential gains. That concept called for strict limitations on both the US and USSR strategic defensive forces; the maintenance of a balance between the two sides' offensive nuclear forces, and negotiated reductions on offensive nuclear arms to maintain balance and deterrence at progressively lower levels. Despite the exercise of restraint by the US in the 1970s in its programs, the Soviet Union failed to reciprocate. This has called into question the basic assumptions underlying our concept of deterrence.

In light of these and other considerations—particularly the horrendous threat posed by nuclear weapons—President Reagan decided that we should see a better way to assure credible deterrence over the long term. That is the purpose of the Strategic Defense Initiative—to determine whether new defensive technologies have potential for strengthening deterrence.

SDI is a long-term research program that is being conducted fully consistent with the ABM Treaty. It is not an effort to achieve superiority over the Soviet Union. In fact, one of our key objectives in the negotiations are to reverse the erosion of the ABM Treaty by seeking corrective Soviet action in areas of Soviet non-compliance and questionable compliance with that Treaty. Another long-term goal is to achieve deep reductions in offensive nuclear arms that will result in a more stable strategic relationship.

As we seek these near-term goals, we cannot allow Soviet negotiating tactics or public polemics to preempt our long-term ability to determine whether such de-

fenses are feasible and whether they could contribute to a much more stable deterrent. At the same time, the President has made clear that any future decision to deploy new defenses against ballistic missiles would be a matter for negotiation.

This does not mean a Soviet veto over our defense programs. Rather our commitment to negotiation reflects a recognition that we should seek to move forward in a cooperative manner with the Soviets. We have thus offered to begin discussions even now in Geneva with the Soviets as to the implications of new defensive technologies, whether developed by them or by us, and how we might together manage a transition to be a more stable and reliable strategic relationship based on an increasing contribution of defensive systems in the mix of offense and defense.

Of course, arms control should play an important role in such a transition. For example, properly structured, cuts in offensive arms are not only worthwhile in their own right, but they could also facilitate the shift to a more defense-reliant posture.

Before negotiating such a cooperative transition with the Soviet Union, and throughout the transition period, we would, of course, consult fully and work closely with our allies. Such a transition would continue for some time, perhaps for decades, involving decreasing US and Soviet strategic and intermediate-range nuclear arsenals and increased contributions by defenses to deterrence. Ultimately, we believe this process could lead to a more stable world with the eventual elimination of all nuclear arms—an objective to which we, the Soviet Union, and all other nations can agree.

In addition to our bilateral talks in Geneva, there is going on today another forum in Geneva—the third NPT Review Conference—which shares this same vision of a world without nuclear weapons. The United States has always been a strong supporter of non-proliferation and the NPT. We are encouraging participants at the Conference to recognize the contribution of the NPT to the security of all nations. It has been instrumental in preventing further proliferation and—with over 125 parties—is mostly widely-adhered to arms control treaty in history. It has been a tremendous success.

I delivered President Reagan's message and the principal US address to the Conference. The President's message emphasized the importance of the NPT and reaffirmed the central arms control objective of his Administration to achieve substantial reductions in nuclear weapons. The President also emphasized the importance of U.S.-Soviet cooperation and indicated that he was looking forward to his November meeting with General Secretary Gorbachev.

The NPT is one area where the interests of the US and the Soviet Union coincide. Both countries have emhasized their respective arms control proposals. The first two weeks of the Conference have been characterized by restraint and cooperation. A senior Egyptian diplomat—Ambassador Mohammed Shaker—is President of the Conference. His efforts and those of his government helped significantly in promoting this positive atmosphere. The general debate has concluded and the committee work started this week.

As expected, many countries have supported a comprehensive nuclear test ban. The Soviets announced their proposed testing moratorium which is uninspected and unverifiable, and would put them in a position to breakout on an accelerted schedule as they did in 1961. In contrast President Reagan has made an unconditional offer to permit the Soviets to visit our testing site with their equipment to measure a US test to begin to lay the basis for verifying test limitations.

The concern by many countries relating to a CTB has not, however, diminished the recognition by virtually all speakers of the important contribution of the NPT to international security. Many countries also urged greater adherence to the Treaty, and supported broader coverage of international safeguards in nonparties to the NPT.

We know that the last two weeks of the Conference will be more difficult, as the effort begins in the Committees to examine certain issues in more detail. We hope that the spirit of restraint and cooperation will continue, and that the Conference outcome will further strengthen the NPT.

Mrs. BYRON. Let me start off with a couple of questions. As I mentioned in my opening remarks, the President has submitted two reports on Soviet noncompliance. Could you go into that in more detail? Have the Soviets agreed to any corrective action? Has it been acknowledged by the Soviets that we have even made a statement in that area? Do you see any potential corrective actions as a result of the negotiations within the Standing Consultative

Commission? You mentioned the phased-array radar and I think we could in open session go into that in a little bit more detail.

KRASNOYARSK RADAR

Mr. ADELMAN. Let me start with that because, as John Mitchell used to say, that is the big enchilada.

Mrs. BYRON. After verification.

Mr. ADELMAN. You have a difference. The Krasnoyarsk radar shows the difference. We can verify the provision of the treaty saying early warning radars should be on the periphery facing outward. We found the Krasnoyarsk radar not on the periphery and not facing outward. It is 4,000 kilometers from the border it is facing, 700 miles from the Mongolian border, which it is not facing.

By no stretch of the imagination could it be considered on the periphery facing outward. From the arms control point of view, what is most disturbing about the Krasnoyarsk radar is that it is a long lead-time item. If the Soviets were going to acquire a nationwide ABM territorial defense—that is the one whole category that has been clearly outlawed by the ABM Treaty—phased-array radars of that type would be the long lead-time items needed to start the process of building that territorial defense.

It is most disturbing because the radar was ordered for construction and probably started construction in the seventies, the same decade in which the Soviets signed the ABM Treaty. This is a stunning development because the Soviets certainly knew that we would find the radar.

It is several football fields large. They certainly knew that by no stretch of the imagination could we consider it anything else but a violation, but with seeming disregard, or callousness, or carelessness, they went ahead with this radar, so it is a clear violation. It reminds me of a passage in the book by the Soviet defector who used to work at the United Nation, Arkady Shevchenko. He has a wonderful paragraph in it that states that the at the same Politburo meeting where they decided to sign the Biological Weapons Convention [BWC] in 1971, during that same meeting, they decided to go ahead and produce biological weapons which were in direct violation of that convention.

So, according to his account, it is almost like agenda item 1 of the meeting was to do away with any kind of research for biological weapons and sign the BWC; agenda item 4 of the same meeting was to go ahead and do research in biological weapons. And that kind of thinking is reflected in the construction of the Krasnoyarsk radar.

Mrs. BYRON. Let me say that this committee has looked at that issue; the Administration has been looking at that issue. We have both discussed needs to take proportionate steps with regard to those violations. Do you find that currently any steps are being considered at this time?

Mr. ADELMAN. We have discussed at great length with the Soviets our problem on the radar. In fact, it is interesting that during the time that this issue came up in the summer of 1983 we were doing the first draft of the President's report, which as you mentioned was submitted in January 1984.

We in the Arms Control Agency were doing that. It was interesting that the big debate among the professionals, our very good professionals in the agency, was whether or not to include as a possible Soviet reason that the radar was a space tracking radar.

We had not talked to the Soviets about the issue because they had not agreed with our request to have a special meeting of the SCC, so we did not know what excuse they were going to give for the radar.

Some experts in the agency thought that saying that it was a space tracking radar was such a preposterous notion that we should not include it in our report because the Soviets could give more convincing reasons. Then the Soviets decided to give that as a reason. It shows that we could have written a better brief for them on the Krasnoyarsk radar than they wrote. They picked a pretty lame excuse.

There has not been any significant movement on that issue from the Soviets since that time.

Mrs. BYRON. Mrs. Holt.

Mrs. HOLT. Thank you, Madam Chairman.

I am concerned about some of the attitudes that we see here in the Congress. We have a couple of bills kicking around. House Joint Resolution 3 which came out of the Foreign Affairs Committee is stronger than simply a sense of Congress, and would require to some extent the President to immediately begin negotiations for a comprehensive test ban. We also have H.R. 3100 which is the old freeze job. Yesterday the oversight people for the negotiations met with our negotiators. Some of the Members of Congress were urging Ambassador Kampelman to make overtures to the Soviet Union, offer some cessation of research in SDI. They felt that we were not approaching the negotiations in the proper way; that we should make a good faith offer to give up another B-1 or something like that and see what they would do in return. Talk a little bit about how you feel our actions here affect the possibilities of the negotiators.

CONGRESS' EFFECT ON NEGOTIATIONS

Mr. ADELMAN. Well, it is just a fact of our governmental system and our democratic life. We really wouldn't want it any other way, but you have to realize that the kind of pressures that are exerted on our negotiators and negotiating process are extremely one sided, that there are no compensating pressures on the Soviet side which is why the Soviets can have grand proposals and set dates for results in arms control.

They feel none of the pressures, from their public, or from their parliament, or from the press, that we have. I have often thought about your question, Mrs. Holt, and thought to myself what it would be like if you had a labor negotiator negotiating with a business and he was trying to get $5 an hour for his workers. Some of the locals had taken a vote and wanted $3.50 an hour. Some of them didn't want the 3 weeks' vacation that he was trying to negotiate for and they were little by little trying to eat away at all the kinds of proposals he was trying to get management to agree to.

Of course, nothing like that ever happens in labor negotiations, but if it did, it would obviously start undercutting his negotiations.

In that analogy, the management can well realize what locals are doing but by and large labor negotiators are helped by the staunchness of the locals behind them rather than by flimsiness in their support.

In arms control negotiations, I think experience will show it is almost never that you get serious pressure from the Congress to be tougher in dealing with the Soviets. I say almost never. I think the pressure is always to give up something to create a better environment. What can we give away to have a successful summit? If the name of the game is gutting American programs, then we can do that pretty easily. We can do that with or without the Russians. Obviously if we start, and the Congress starts, to cut programs that are under discussion with the Soviets, then they can get something free for which they don't have to give up anything.

Mrs. HOLT. Certainly that is my feeling about it. I think that our lack of patience and our desire to create an agreement simply for the sake of the agreement has been working to our detriment in the past. You said you would talk a little more about the SS–25 if we wanted you to. Will you?

Mr. ADELMAN. Sure. I probably get asked when I go around the country more than anything else, is there going to be an agreement. It is such a funny question because it implies that any agreement is OK—no matter the terms. I have told people, and I firmly believe, that arms control by and large has legitimized what the Soviets want to do anyway and that if we want another arms control agreement that results in a big buildup of Soviet forces, such as in SALT II—they have added 4,500 ballistic missile warheads—we can have that kind of agreement tomorrow.

I often wonder myself what it would have been like if my predecessor testified on SALT I, stood up to this committee and said:

> Members of this committee, let me just tell you that I think SALT I is a very good proposal.
>
> I should just tell you that over the next 10 or 15 years under the terms of SALT I, the Soviets are going to add 8,500 ballistic missile warheads.
>
> I am going to tell you that under the terms of SALT I, the Soviets are going to have five new generations of land-based missiles. I am going to tell you that under the terms of this agreement we are going to have three new bombers on the Soviet side. I am going to tell you that there is going to be X number of new SLBM types as well as numbers.

You would have sat there and said, "Ye, Gods, what does this agreement do?" And during SALT II, if the testimony has been under this agreement, "by 1985, the Soviets are going to add 4,500 ballistic missile warheads to their arsenal, have new type missiles, et cetera."

Getting back to your question, Mrs. Holt, the SS–25 is very disturbing because it is a prohibited second new type Soviet missile. They designated the SS–24 as their one permitted new-type missile and again, with seeming disregard for how we would take this violation, they went ahead and tested something that the U.S. Government agencies involved have been unanimous in finding a clear violation.

Mrs. HOLT. Thank you.

Mrs. BYRON. Mr. Stratton.

Mr. STRATTON. Thank you, Madam Chairman.

Mr. Adelman, let me welcome you once again before this subcommittee. I appreciate your recognition of our valiant efforts in trying to end the arms race back in 1982. In fact, I was surprised to see you walk in because it was my impression that you were either already in jail or soon were going there because of what has been charged a very serious violation, possibly with implications of impeachment of the President of the United States, to have advised Congress that there was going to be a test of the ASAT; but presumably the conditions that the congressional resolution had provided had not been fulfilled, and I am glad to see that you are out on parole at least for some time.

Mr. ADELMAN. For this hearing.

ASAT ISSUE

Mr. STRATTON. What troubles me is that this ASAT thing is the number one issue on arms control, at least at the moment, and I have never been able to understand why the exponents of arms control seem to feel that there is something immoral if the United States should get ahead of the Soviet Union.

Mr. Brown, who was one of the major arms control advocates, has been very strongly opposed to our undertaking a test of our own ASAT because that would mean that we were ahead of the Soviet Union, and why is it that it should be bad for us to be ahead of the Soviet Union?

I thought that in our carriers we were hoping to have carriers that were much more capable than the Soviets, nuclear submarines that were much more favorable, and yet somehow in this particular case we are supposed to be behind the Soviets, and if we should get ahead of them, that is somehow bad. I don't know whether you can answer that question, but it has been perplexing to me.

Mr. ADELMAN. I think that the answer to your very perplexing question is basically hard to find. History shows that we have had a period of U.S. strategic and military superiority from 1946 to 1967, 1968, 1969; there was no aggressiveness by the United States during that time, there was no taking of territory, there was no kind of expansionist foreign policy, there was an attempt by our country for a flourishing of freedom and for peoples choices around the world.

We have not lived in a period of Soviet military superiority and if indications—Afghanistan, and Eastern Europe and the Northern Island in Japan—give us any light into what would happen, it would not be such a pleasant world for us or for those who love freedom.

So to think for a moment that we would be responsible, as public officials, to allow the Soviets to get strategic superiority or military superiority is to just lose all sense, if you ask me. It would be the most irresponsble thing we could give to our future generations, to hand them Soviet superiority.

On the ASAT issue itself, I can't remember many of your colleagues, Mr. Stratton, protesting when the Soviets started testing their ASAT. I can't remember the kind of excitement that we hear today when the Soviet program gets going, and it does seem to me

that it gets back to what President Mitterand said about INF's a few years ago when he asked the simple question, "Why are all the Euromissiles in the East and all the protesters in the West?"

So that this kind of excitement comes up when the United States tries to have its test of an ASAT system, when the Soviets have had an operational system since 1977. I think that the plan there is to have a moratorium which would lock in Soviet superiority. The Soviets would like to have superiority in this realm as in every realm, and any time you have a moratorium the Soviets will have a good negotiating climate, because they will just love it.

MX MISSILE SYSTEM

Mr. STRATTON. As you know, the decision made in the conference report on the fiscal year 1986 Defense Authorization Act limited and capped the MX missile system at 50 weapons. I wonder if you could give us any idea what that kind of a decision generates in terms of Soviet perceptions? It was a very aggressive President on arms control, President Carter, who said that we needed at least 200 MX missiles for the system to be credible.

President Reagan reduced that to 100, and now we are down to 50. What does that do to us in our negotiations in Geneva or our negotiations with Mr. Gorbachev if that summit meeting comes off?

Mr. ADELMAN. I think that gets back to the point I was making a few minutes ago and that Mrs. Hall was making—that if you hand the Soviets strategic superiority by our unilateral actions, then they are never going to achieve strategic parity through negotiations. We are never going to win at the negotiating table what we hand up and yield up unilaterally. I think it was much later, now by my old friend and, now I am happy to say, colleague, Max Kampelman who said when we give up programs like this, the Soviets never see it as a sign of good will, they see it as a sign of lack of will.

Mr. STRATTON. Mr. Macrostie, who was one of those who was responsible for pushing the program from the 40 that the House had agreed to up to 50, also indicated that he recognized that if the MX was to be credible it needed additional weapons to be tested from time to time to make sure that the system really works, and he was agreeable to requiring those additional test missiles.

If we should be short of what we needed in a period of tension or of actual combat, would it be possible to use those test missiles as part of our arsenal?

Mr. ADELMAN. I don't know the answer to that, Mr. Stratton. Let me say that all these questions on Soviet attitudes toward this or that make me think that maybe at the witness stand should be my friend from the Soviet Union who is back there who seems to go to all the hearings that I appear at.

I guess I keep a few guys from the Embassy employed full-time on my testimonies, but his presence does show a remarkable asymmetry in what we are dealing with—where we have an open society on arms control and he can go to all the hearings and get all the studies, and where we really have a black box as far as Soviet programs go, and Soviet intentions and Soviet plans are even cloaked.

Mr. STRATTON. Thank you.

Mrs. BYRON. Mr. Badham.

Mr. BADHAM. Thank you, Madam Chairman.

Mr. Adelman, it is always a pleasure to greet you here. I got the thought after your last comment about the presence of the Soviet Union here in our committee room that you are beginning to act human. I think you do a magnificent job as far as you are able and I consider you to be extremely able, but I don't enjoy your job very much at all.

Mr. ADELMAN. I don't enjoy my job either.

Mr. BADHAM. I don't see how you can do it really.

Mr. ADELMAN. I had a happier life at the United Nations, if you can believe that.

SOVIET PLEDGES

Mr. BADHAM. Don't run for Congress. That is worse. The Soviet Union of course has pledged no first use of nuclear weapons. So should we really care whether or not they have more warheads and missiles than we?

Mr. ADELMAN. We really care that they pledge that. You have to look at the record of Soviet pledges over the years. They signed nonaggression treaties with Afghanistan, with others. Once you get into an unverifiable, unenforceable agreement with the Soviets you better watch out. The history of the Soviets caring about those kind of questions is not a bright history, so when they say no first use of nuclear weapons what they want to do is to erode free societies from having the web of deterrence that we have had.

Since 1945 the Soviets have been superior in conventional arms in Europe, the central front. We have said that the deterrence is a spectrum of the conventional level, the tactical nuclear level, the theater nuclear level and the strategic nuclear level. These are all related and therefore we were going to come to the defense of Western Europe if attacked and in whatever way we saw fit.

Mr. BADHAM. Now, you have mentioned the statement about if we should give the Soviets strategic superiority. Have we already or have we already not?

Mr. ADELMAN. I don't think we have. I think that what we have to watch out for today is what is going to happen in the future. This panel and your full committee and the whole U.S. Congress is not voting on the military systems that President Reagan will have as tools to use. What you are doing and what he is proposing are budgets for future Presidents. Previous Presidents have given him the tools he uses today. He was quite disturbed—at the beginning of President Reagan's administration—when he came into that office, the Soviet Union had an open-production line in all three legs of the strategic triad—in Khrushchev's phrase cranking out missiles like sausages—while the United States, when President Reagan took office, had no open-production line in two out of the three legs of the strategic triad.

We had no open production line on heavy bombers, we had no open production line on ICBM's. That kind of trend over the years has got to hand the Soviets strategic superiority. Thank God we have had a strategic modernization program to restore that. We have the B-1 and we have had the MX, although 50. We are look-

ing at other remedies in the ICBM's, the Trident is still on schedule. Cruise missiles have come along.

But I think that is essential to keep the deterrent force going and to provide incentives for arms control. It seems to me with the defense plan of the previous administration that, although as Mr. Stratton says it was certainly an administration devoted to arms control, it was really undercutting arms control by the lack of any kind of incentives.

Mr. BADHAM. Throughout your formal statement you used references to trite phrases and polemics. In your impression does it make your job harder to sell at home and abroad or easier if, assuming that the Soviet statements are polemical in nature, that they do play pretty well in the American press?

SOVIET CHARM OFFENSIVE

Mr. ADELMAN. They do play somewhat well and I think that Mr. Gorbachev is on a charm offensive. I think, however, that they are able to do things that we just simply cannot do because of our political system and I am not saying that at all critically to our system, but it is just a factor. We cannot go and just give grand meaningless pronouncements in arms control that have nothing really of substance beneath them, because we will be hauled up for congressional testimony, the press will want to see what is behind it, and the allies will want to see what is in it. That is a basic asymmetry.

They can say all kinds of things with disregard. I think that the Soviets today are following Lenin's maxim that what happens outside the negotiating room is far more important than anything that happens inside the negotiating room. They are trying to turn this charm offensive into working our congressional system, working our allied system to really go after and gut democracy.

Mr. BADHAM. Thank you. Again it is a pleasure. Thank you for being here.

Mrs. BYRON. We have a vote on the floor. I think if everyone agrees, we will take about a 10-minute break, go vote and come back quickly.

Mr. Ray, you will be on next when we get back.

[Recess.]

Mr. RAY. In the absence of Mrs. Byron, I think we will just proceed, and since I am up next, I would like to say welcome, Mr. Adelman, to this hearing today and your testimony—I just apologize for being late—but I enjoyed, just finished reading through your opening statement, which is very effective.

I notice that you are expecting that the meeting with the President and the General Secretary may produce some positive indications, particularly in the areas of arms control. Can you elaborate on that just a little bit? Are you expecting some things on the agenda that will encourage all of us?

Mr. ADELMAN. Yes, I think we can expect that the President will convey to Mr. Gorbachev. His sense of how we have to move the arms control process forward; that the Soviets should stop their propaganda assault which is not matched by any seriousness in the negotiating room—I think that the real place where we can do

business in arms control is in the negotiating room in Geneva; that the Soviet proposals by and large have been tailored to a propaganda offensive rather than to moving the process forward; and that we want to cut production in offensive nuclear weapons.

Second, I think Mr. Gorbachev can get a sense from the President of how the President feels about SDI as a research program that offers the possibility to make a much safer world, and to get away from this idea of two scorpions in the bottle or two people with guns held at each other's heads.

Mr. RAY. Yes. I noticed you have made very fine comments about Ambassadors Kampelman and Glitman and your confidence in them and so forth.

Mr. ADELMAN. Extremely much. I have known Max Kampelman—we were colleagues on various activities—for a good number of years. In fact, after I was named, nominated, confirmed as Director of ACDA, I started a little outside group that met some Saturdays to talk about arms control—just to get advice from those I consider the wisest people around town. Max Kampelman was among them, and he spent some Saturdays with me and with others in the agency and outside, giving advice on these issues. I valued it and also found him terrific.

Mr. RAY. While we are very interested in this panel in arms control, and the ramifications of it and so forth as important, I myself have a rather difficult time in talking to our Members of Congress, Members who don't have that same interest, and to my constituents, as soon as I get into arms control their eyes begin to kind of glaze over to a degree, and so we are looking forward to these dynamic new people in their negotiations and talks and so forth, and in bringing some strong interest that we can raise in our constituents on arms control—our constituents at large.

NEW STRATEGIES

Do you see any new strategy—I know you can't talk in detail about this—do you see strategy developing which might be something we can use in our goals on this panel to keep people informed, keep the commitment alive, the interest alive and negotiations strongly supported? Do you see something coming down the pike maybe we we don't know at this time?

Mr. ADELMAN. I guess, Mr. Ray that I have found myself that the interest in arms control is extremely high around the country and indeed around the world. Knowledge about arms control is extremely low. I have not known a subject where people feel so passionately and yet spend so little time learning about the issue, as arms control. It reminds me of a story that Samuel Johnson once reviewed a novel and met a fellow on the street the next day, who said, "Dr. Johnson, that novel that you reviewed—you gave it a glowing review and it is just a terrible, terrible book." Samuel Johnson replied: "Oh, my lad, I would much rather praise his books than ever read them."

In arms control there is a similar kind of feeling that I see at this time. People would much rather talk over the issue than learn about it. So I look to this committee, as I look to all serious Congressmen and Senators, to infuse the emotion with some kind of

knowledge, with some kind of sense, with some kind of historical perspective in terms of the issues we were discussing this morning—how administration after administration wants deep reductions and arms control and the Soviets have really never agreed to that.

How administration after administration wants Soviet compliance. That has not taken place.

How we have tried to change the military situation through arms control and the Soviets have not agreed.

I think those kinds of steps and knowledge would move the debate over whether there is going to be arms control agreement or not going to be arms control agreement on to a more cerebral plane.

CHEMICAL WEAPONS BAN

Mr. RAY. Secretary Gorbachev this week, in the last several days at least, said that he would give consideration to a chemical free zone in Europe. Is this more of the same?

Mr. ADELMAN. This is word for word the same as happened a few years ago. It surprises me, Congressman Ray, how you can take a press release from a few years ago, dust it off and issue it again and get a third page story in the New York Times. It just stuns me. You try to do it sometime in your District. I will bet you won't succeed. But the Soviets do it and they succeed just find.

Mr. RAY. How would you improve on the Soviet proposal?

Mr. ADELMAN. Sure, we can improve it, we can improve on it by having a worldwide ban on chemical weapons and that is why you heard from Ambassador Lowitz on those negotiations, and we consider those negotiations extremely important. While there was some modest progress in this round on banning chemicals, by and large the Soviets have been stonewalling. They would like a chemical weapons free zone in central Europe, knowing that they could bring in chemical weapons in one-half hour to flight at any time, and knowing that we could never find a specific chemical weapons, free zone or not. It is an old press release that they have taken out of the drawer and, blown off; and, people in our press think it is worthy of page 3.

Mr. RAY. My final comment along that line, do you speculate that the fact that we have made a little bit of progress here in the Congress on binary weapons might have backed that up as the answer to that?

Mr. ADELMAN. Yes sir, I think it is a necessary but not sufficient ingredient for the Soviets to start negotiating seriously on a worldwide ban, and we have made it emphatically clear to them that we will get on and eliminate chemical weapons from Earth, and Sam Stratton and others know that I spent most of my time at the United Nations working on this very issue because when I look at history, and in the future, I think to myself how many people will die of nuclear weapons over the coming years, and the answer is not many. I don't believe any.

But how many people will die of chemical weapons? Many people in the Third World unless we get a handle on this issue. Chemical weapons are the poor man's weapon of mass destruction, and the

poor countries weapons of mass devastation. So they are particularly horrendous, as we all know. In Southeast Asia the yellow rain, Soviet chemicals given to the Vietnamese, resulted in people's skin melting off, blood flowing out of all the their body openings, and people choking on their own blood before they died.

I went with a team, after going to China, up in northern Thailand to a refugee camp and talked to people whose families had been exterminated in this manner. It is not a very pleasant way to go, it is painful, it is just vile.

Since that time, the Iraqis have definitely used chemical weapons. There are more and more countries out there shopping for chemical weapons. The number of chemical weapons states has gone from 5 in 1963 to 14 to 16 today. I think it is a big problem that we should address, trying to get a total ban on chemical weapons and short of that, to try to persuade the West to have a nonproliferation effort on chemical weapons to stop the spread of them. We have been making progress along those lines.

Mr. RAY. Thank you so much. We really appreciate your being here today, this morning, and I guess all of my comments are based on the fact we are trying to find and work with you in a positive way to project hope and interest in our constituency that they support us and you in negotiations.

Mr. ADELMAN. Thank you. That comes through and we appreciate it.

Mrs. BYRON. Mr. Courter.

Mr. COURTER. Thank you very much. It is a pleasure to be here to listen to Mr. Adelman. I have a number of questions in a number of areas if you could just talk about them. I had the opportunity to talk with Ambassador Gerard Smith in my office yesterday. He wrote an article and I disagreed with it. I wanted to straighten the record, so we had a chance to talk about a number of things, one of which was about the Krasnoyarsk radar—I would like your clarification of your statement about those things.

He indicated to me that the Krasnoyarsk radar would not be a Soviet violation. We won't know until it is turned on. He also said that the United States has two phased array radars that, although not oriented totally outward, are on angles so they would be technical violations of the treaty and I would like your comments on that.

The President proposed to the Soviets that they send technical observers, as you know, to a nuclear test and I think I know, but I am wondering if you would just give me your thinking as to the reasoning behind that.

TREATY VIOLATIONS

Finally, I noticed that you indicated the importance of having a comprehensive treaty prohibiting chemical weapons, and I have always been concerned about verification of arms control agreements, as you know, and it seems to me, in my mind—and the reason I am asking you is to set me straight—is that, is it consistent to have a position like the United States has, of advocating a total ban on chemical weapons and at the same time we are not quite ready to have a comprehensive test ban treaty because we

can't verify a nuclear explosion. It seems to me that if we can verify the existence of chemical weapons we can certainly verify a nuclear explosion.

Mr. ADELMAN. A good point. Thank you, and thank you for your help over the years on many of these issues.

First, on the Krasnoyarsk radar. It is our legal opinion that—and this is not contradicted by any agency of the Government—that the Krasnoyarsk radar is a violation because of its location and it does not have to be turned on to be a violation, at all, because the ABM Treaty states that you cannot have a radar of this type located anywhere else but on the periphery facing outward.

This has been an issue that I have been going back and forth on with the group that Congressman Solarz organized—I think it is a noble effort. We agree on very few issues but on this one Solarz wrote to Mr. Gorbachev saying that the radar was a very serious issue on violations. However, Congressman Solarz was of the opinion that the Krasnoyark radar was not a violation until it was turned on.

We wrote Congressman Solarz a letter saying that in our legal opinion, it was not a question of when the radar was turned on, it was a question of the location and it is a violation today as a result.of that location. I will be happy to provide that information to this panel.

Second, on U.S. radars, there has been this claim made by my predecessor, Gerard Smith and others. Let me say, in simplest terms, if we were violating the ABM Treaty, or any treaty in the world, you wouldn't hear whisper campaigns about it, you would see front page stories about it. It would be on the cover of most news magazines; it would be the subject of tremendous congressional testimony; there would be waving arms around and everything else. It wouldn't be a whisper campaign, or just rumors, on it at all.

We have built these radars with the Treaty clearly in mind and clearly realizing: (a) The United States in any administration abides by the commitment that it makes—that has been steady throughout history, and (b) that any administration that doesn't abide by the commitment of the United States will certainly be found out pretty damn quick and so that you will get this self enforcing mechanism. The details of that radar I will be happy to supply. I have looked into that matter myself and I don't think it is even a close call. I am interested that some people in the United States make a bigger issue of that kind of situation than do the Soviets themselves. But maybe they will make a bigger issue if the people in the United States keep talking about it.

Third, on nuclear testing, we do see that the problem on the nuclear testing issue was twofold, the verification problem and the problem of reliance on nuclear weapons for the ultimate security of the West.

On the verification issue, we thought the best way to move the process forward was to have an exchange of visitors, of Americans at Soviet tests, and Soviets at American test sites. What this would enable the United States to do is to calibrate the seismographic data measured around the world, see how accurate it was in terms of what the Soviet test sites actually are seismologically.

In simple terms a speedometer on a car that can tell you 60 miles an hour, 50 miles an hour, whatever speed it is moving. That speedometer may work very well but we need it, when the car is finished production, to be calibrated on a treadmill that it goes exactly 60, so that you can make it clearly on 60 when you know the speed is 60; then you will know that speedometer works fine. The same is true with a thermometer in the House. Once you do that calibration, your instruments will be accurate.

We have never gotten any information directly for calibration of how accurate our seismographic data is. Consequently, we have been going back and forth over the years saying that the Threshold Test Ban Treaty and Peaceful Nuclear Explosion [PNE] Treaty cannot be verified to closer than a factor of two. If a test is 150 kt, it could show up on the monitors at 75 and it could show up at 300.

So what we wanted to do is to have an exchange of visitors. To be more forthcoming yet, this year, the President offered to have the Soviets come and start the process by visiting the test site in Nevada. For the life of me, spending many hours thinking about this question, I cannot imagine what the down side would be to the Soviet Union doing this, but the Soviet Union has not accepted and in fact, refused; and there we sit.

On the question of chemical weapons and the comprehensive test ban [CTB] I guess the answer is that we are willing to have for chemical weapons verification, an anytime, anywhere verification provision. Where we, the Soviet Union, or any country suspect chemical weapons, we would open up that facility to show that we had no chemical weapons and would expect the Soviets to do the same.

We do not rely on chemical weapons for the ultimate guarantee of our security as we do nuclear weapons. So that is a very big difference between the two. It goes back to the point that Congresswoman Holt made so well: That, when you have nuclear weapons as ultimate guarantor of freedom of the West, you have to be very attentive to that until the time nuclear weapons are done away with. We hope very sincerely that the President will get to realize his dream at some point that nuclear weapons are no longer on Earth, but we are quite a ways from that right now.

Mrs. BYRON. Mr. Courter, do you have any further questions?

Mr. COURTER. Yes, if I have a moment.

Mrs. BYRON. We are going to go a second round.

Mr. COURTER. I will wait for the second round.

Mr. ADELMAN. I have never seen him without questions in my life. This will be a first.

Mrs. BYRON. I thought I would ask him. I knew he might have some more.

Let me touch on an issue that has been quite prominent in the media. I think Congressman Stratton touched on it a little while ago and the fact he is glad that you were not behind bars today and that is——

Mr. ADELMAN. He didn't say that, Madam Chairman, he just noted the fact that I wasn't behind bars. I don't want to put any words in his mouth.

Mrs. BYRON. In your response to the furor that we have seen in some quarters of Congress caused by the go ahead on ASAT testing

by the administration, last year we tried very diligently to get an amendment—I was the one that was in charge of that amendment—to give us the authorization to test the same number of tests that the Russians have done on their ASAT's.

Do you feel that we currently, had that amendment passed last year, have already completed the tests that are initially projected for this timeframe? There has been an awful lot of discussion going on about the timeframe now, is it tied in with the talks coming up in November, or is it just a period of development whereby it comes by time to do the tests?

Mr. ADELMAN. Let me say several things on that, if I may, Madam Chairman. First is that the administration is certifying in good faith to the Congress—and when we issued that certification, I think we made it quite clear how this test meets the certification requirements of Congress.

ASAT PROGRAM

Second, I would note that the ASAT Program is a program that was first proposed in 1976 and then really proposed in a serious manner from 1977-78 during the Carter administration. Congress has supported the program year after year; so we should not get the idea now that a group of individual Congressmen, who are trying to kill the program, are any kind of example of the will of Congress.

Third, I think that it makes sense for the Congress to support this program because we do not want to lock in a Soviet monopoly on ASAT's any more than NATO wanted to lock in a Soviet monopoly on SS-20's and that kind of weapon system. I think any time you lock in a Soviet monopoly you are only asking for trouble in terms of world stability and security.

Lastly, let me say, now that I am on the test program itself, that this is not the speediest test program that has ever come about for a military program. As I said, the funding was first proposed in 1976, really pushed for in 1977. The first tests were held in 1984 and here we are almost 10 years after the program is first proposed with the third test.

We do not change the timetable of the test program in any general sense because of arms control or any other considerations. The program was going to test against what are called ITV's—instrumented test vehicles, and against old satellites and that mix was changed so that one test that was going against an instrumented test vehicle, one of those balloons, has been changed to an old satellite. That doesn't change the nature of the testing program one bit.

Let me end up by saying, Madam Chairman, that I think it is a bad idea to negotiate with the Soviets and to give all kinds of things in anticipation of what the Soviets might do at the negotiations themselves. I think that what you are doing is giving away bargaining leverage by doing that. I don't think it is ever good to negotiate and to give up, time and time again, while you are negotiating exactly the subject that you are negotiating over.

Mrs. BYRON. I think we saw that with the negotiations over the Pershing missiles, at which time they had on the drawing board for a 7-year timeframe for deployment. As it came to the time to be

deployed, that was the time at which time the Soviets said, hey, wait a minute, if you don't deploy them we will talk about it seriously. I think the same thing is true in this program.

In our opinion, do you feel that the Soviets all of a sudden are dragging behind in the ASAT research or in their system?

Mr. ADELMAN. No; I think their system is a system that has operational capability and has had operational capability since 1971. I think their system is a system that is based on 1960's technology, just as our system is based on 1970's or 1980's technology.

Mrs. BYRON. They have an existing system?

Mr. ADELMAN. They have an existing system and that is worth something in this business. We have plans for one. We have a test program to eventually have one. But as I say, if you look at the test program it is not the quickest moving program in the world. It is now almost a decade old.

And second, their system, although more primitive than our system would be, still has an operational capability and still, according to the best estimates we can come up with, would be quite effective in hitting valuable satellites of the United States. This is important because it could result in serious damage in time of conflict to our capabilities.

Mrs. BYRON. Let me talk a little bit about the SDI. In my mind, I find it very difficult to go from square 1 to an active SDI without an intermediary step. Is ASAT an intermediary step toward an SDI concept or deployment?

Mr. ADELMAN. No; I think that while it is true that there is some technology common to ASAT and to SDI, by and large the programs are designed to do different things and will have different capabilities. Let me remind you, once again, the ASAT Program was first started in 1976. This is 7 years before SDI was even conceived by President Reagan, so in no sense can you say that the ASAT Program is a subterfuge for the SDI Program.

Second, the capabilities would be quite different and a system to destroy a satellite in space is quite different from one for destroying a reentry vehicle—although, as I say, there are some areas of overlapping capability.

Mrs. BYRON. Mr. Gorbachev has recently stated that he feels that money for SDI is being spent on things other than on research. Do we have a differentiation in our view of what research is and the Soviets have a different view of what constitutes research?

Mr. ADELMAN. That is a very complicated area and it is one that I am going to take a pass at this time because we have been discussing this matter in private with the Soviets and I would like to keep it on track.

ABM TREATY

Mrs. BYRON. How about in regard to the contention that the program violates the ABM Treaty?

Mr. ADELMAN. That is preposterous and it would be preposterous to ever claim that the SDI violates the ABM Treaty. We have designed the program to be in conformity to the ABM Treaty. I know firsthand that there were some things that the technicians would have liked to have done. They were just not allowed to be done, in

order to keep it in conformity to the ABM Treaty. Let me assure you, Madam Chairman, not only would we never go that route, because the President made it very clear that we are to stick with the provisions of the ABM Treaty, but second, that, if we went that route, you would know about it the morning after, because of, as I say, our open society, our open press, and our open congressional investigations.

Mrs. BYRON. Mrs. Holt.

Mrs. HOLT. I have no further questions.

Mrs. BYRON. Mr. Stratton.

Mr. STRATTON. In connection with that question of whether it does or does not violate the ABM Treaty, I was around when the ABM Treaty was signed and I was one of those who thought it was a mistake when we backed off of an antiballistic missile. My general recollection was that the ABM Treaty said that you could have one site at your capital and you could have one other site, and the Soviets set up a substantial site around Moscow and somewhere else, and we decided not to have any. But when SDI came along, there were things quoted in the press that I never had even heard about in the ABM Treaty—items that were responsible for this charge that the SDI was going to violate the ABM Treaty. Where did these subtleties come from?

Mr. ADELMAN. They are not subtleties, they are just a campaign against SDI. What those people are saying is that--or let me be clear—what the Soviets have been saying is that there is research with an intent to do one thing, and research with intent to do something else. They have research only with a good intention. We have research only with a bad intention.

The ABM Treaty is quite clear in one respect, research is allowed and we never have gotten into this business with the Soviets, nor should we ever, of banning something to do with intentions. Intentions happen in people's minds and we cannot verify what happens in people's minds. What we are saying is that research in this area is allowed, and has been allowed. That was clear from the ABM Treaty but the Soviets have been taking a different tack. You shouldn't be surprised at this. The Soviets will take any tack that they can to gut SDI.

Mr. STRATTON. That seems to be quite clear. It must be good because it has them really worried.

Mr. ADELMAN. They are all tripped up, Congressman Stratton, on their propaganda campaign and they have a little trouble with it. On the one hand they say SDI is going to be useless because they can have countermeasures and steps that easily thwarts defense. On the other, they say it is exceedingly dangerous and destabilizing. If it is going to be useless it is not going to be destabilizing.

They also say they have been involved in research for a good number of years, but that it is in conformity to the ABM Treaty—but no, we cannot do that kind of research because it would break the ABM Treaty. So they really are all over the place. I think the big picture is that they would like to see us stop the research, and stop doing something that is literally allowed by the ABM Treaty; namely the research on SDI, while they continue to do something that is clearly in violation of the ABM Treaty; which is the Krasnoyarsk radar.

Mr. STRATTON. Let me ask one other question, if I may, and this may be classified, but I would like to get your response.

We have had a tremendous flurry of activity on the part of the new Secretary General Gorbachev. He first presented the interview with Time Magazine and then he later appeared to have charmed a delegation from the U.S. Senate, although it probably doesn't take too much to charm them. But we are being accused in the press that Gorbachev has got a whole fixed agenda of proposals, we don't have anything. On broad shoulders rests the responsibilities for coming up with a comprehensive program that will floor him. Have we got that?

Mr. ADELMAN. We have that.

Mr. STRATTON. Underway?

Mr. ADELMAN. And we have that and it has been underway. The difference is that our proposals are serious and therefore; they have more details and more of the kind of meat of the substance than these grand, sweeping moratoria you always hear about. What we want to do is reduce nuclear weapons. We both have about 8,500 ballistic missile warheads. We want to get them down to 5,000 on each side. That is a one-third reduction.

We want to eliminate the entire class of weapon systems, INF systems, or at least get the numbers down to the lowest Soviets will let us get them down to.

We want to eliminate chemical weapons with adequate verification on that score.

We want to have a nuclear testing exchange of expert observers.

We want to have reductions at the MBFR, mutual and balanced force reduction, talks in Vienna.

We want to have confidence building measure steps in Stockholm to preclude a surprise attack in Europe.

I think we have a set of proposals for arms control that really is the most comprehensive and broadest that I know about.

Let me say that we don't get the kind of publicity we should probably because we are not as good in regurgitating the same proposals over and over again as they are, for example with the chemical weapons free zone that Congressman Ray mentioned. But also I think there is just a basic difference, in that the Soviets can come up with any scheme and not have backup material for it at all, and just can proclaim it and go on. We are not that way.

Mr. STRATTON. Would that apply to the proposal that if we give up part of the SDI they will have deep cuts in their land based missiles?

Mr. ADELMAN. Yes.

Mr. STRATTON. No specifics. Did they really, did the Senators come back with an idea that maybe that was for real?

Mr. ADELMAN. Well, they can have the idea maybe it is for real, but we just haven't seen it for real where the real battle has been, or should take place, and the real negotiations should take place. We have a negotiating team—a quite extensive and, as you know, an expert team—that is in Geneva to receive Soviet proposals and we just haven't seen them.

Mr. RAY. Is there any way we can focus on these serious proposals that you have mentioned there and get them out? We can't see

that too much in our own press. I read fairly well. It is hidden back in the background.

Mr. ADELMAN. I know that.

Mr. RAY. We need some sort of way to really move this out into the forefront.

Mr. ADELMAN. I agree with you.

Mr. STRATTON. ABC has it all on tape here today. We will hope to see 1½ hours of it tonight.

Mr. ADELMAN. Are you a betting man, Mr. Stratton?

Mr. STRATTON. No, no, I never bet.

Mr. ADELMAN. I will take a bet on 1½ hours. I think it is fairer to say though a minute and a half.

Mrs. BYRON. Thirty seconds?

Mr. ADELMAN. I think it is fair to say that any leader that is asked questions like those that the Time magazine people put to Mr. Gorbachev, is going to come off very, very well. I can't conceive of a news magazine asking those kinds of questions to a President of the United States and letting the statements about how God on high in the Soviet Union would want the Soviet reader to do something, how they have democracy in the Soviet Union, and such. Just to let those go, and move on to the next question, I can't conceive of that happening to a leader in a free country.

Mrs. BYRON. Mr. Courter, do you have any questions? We have a vote on the floor.

Mr. COURTER. I will get them out real quickly.

Is it the opinion of your agency that the SS-20s has potential ICBM capabilities, if you either throw a third stage on it, because it is compatible to the SS-16?

Mr. ADELMAN. Yes sir.

Mr. COURTER. And/or also reducing payload weight by reduction of three warheads to one.

Also a second question, is the problem of a comprehensive test ban treaty from our perspective, the fact that we just simply can't verify very small yield nuclear tests?

Mr. ADELMAN. There are two problems with the CTB. First is the verification difficulty that we have not seen a way to overcome, and second, the problem of the nuclear weapons as ultimate guarantor of our security and our freedom.

On your first question, there have been studies over the years that I would be happy to share with you, that are classified, on the potential upgrade of SS-20 for intercontinental range. Certainly it is safe to say that the SS-20, being the two stages of the SS-16, was one of the reasons that SS-16 was banned entirely—for deployment—by the SALT II treaty. One of our compliance issues, over the years, has been whether the SS-16 is actually deployed or not deployed; we have found, in the past two studies that you have remarked upon, Madam Chairman, that there is some indication that the 16 could be deployed, which causes some concern.

Mr. COURTER. Thank you.

Mrs. BYRON. Any other questions?

Mr. COURTER. No.

Mrs. BYRON. Thank you very much. I, once again appreciate your candid views this morning in your statement in answering our

questions. I appreciate having the opportunity to get an update once again for the panel this year.

Mr. ADELMAN. I enjoyed it.

[Whereupon, at 12 noon, the hearing was adjourned.]

MILITARY IMPLICATIONS OF ARMS CONTROL

HOUSE OF REPRESENTATIVES, COMMITTEE ON ARMED SERVICES, SPECIAL PANEL ON ARMS CONTROL AND DISARMAMENT OF THE PROCUREMENT AND MILITARY NUCLEAR SYSTEMS SUBCOMMITTEE,

Washington, DC, Wednesday, September 14, 1983.

The special panel met, pursuant to call, at 10:15 a.m., in room 2–18, Rayburn House Office Building, Hon. Beverly B. Byron (chairman of the special panel) presiding.

STATEMENT OF HON. BEVERLY B. BYRON, A REPRESENTATIVE FROM MARYLAND, CHAIRMAN, SPECIAL PANEL ON ARMS CONTROL AND DISARMAMENT OF THE PROCUREMENT AND MILITARY NUCLEAR SYSTEMS SUBCOMMITTEE

Mrs. BYRON. Mr. Perle, I apologize. Unfortunately, they are never going to get finished with fixing the Cabin John Bridge.

In the hearings last week, the panel concentrated on the diplomatic side of arms control. During those hearings, we received excellent testimony from the U.S. diplomats who have been closest to the negotiations with the Soviet Union. Members of the panel will have the opportunity for additional fact finding during our forthcoming visits to negotiations in Geneva and Vienna.

The hearings that begin today will deal with subjects that are more directly related to the jurisdiction of the Committee on Armed Services and the Subcommittee on Procurement and Military Nuclear Systems. For example, the relationships of arms control agreements, including future agreements that might grow out of current negotiations or proposals, to our force structure and defense posture.

I think the important question is whether these agreements make a contribution to our national security or whether they have tended to weaken our overall defense posture.

The panel's hearing today, and on September 20, will focus on arms control from different angles than last week's hearings. Our previous hearings have focused on the diplomatic side. This week we will deal with the practical problems and risks that are involved in observing existing arms control agreements and those that may be involved if certain proposals were to be adopted by the United States unilaterally, or as arms control agreements involving other countries.

I have asked the witnesses to specifically address proposals to ban the testing of nuclear weapons as proposed by House Joint Resolution 7 and H.R. 3100. [See App. A and B, pp. 467 and 471.]

As our arms control negotiators have told the panel, it would be easy to conclude a number of cosmetic agreements that would make no contribution to national security; that would not be equitable; that would not be verifiable.

As our negotiators have said, they are looking for agreements that would be somewhat better. Their task is to reduce the tensions, reduce the threats and destructive power of existing weapons and forces while maintaining a verifiable balance at reduced levels. The Congress, along with overwhelming public opinion, will hold them to high standards of equity and verifiability in any agreements that they may be able to produce.

The witnesses this week are experts on the technical and practical problems involved in maintaining the nuclear deterrent, not only for the United States, but for its allies. They have been asked to testify because they represent the best, up-to-date technical U.S. expertise on nuclear weapons and related verification issues. A more experienced and knowledgeable panel of witnesses could not be found on the subject.

Our witnesses this morning will be the Honorable Richard N. Perle, Assistant Secretary of Defense for International Security Policy; the Honorable Richard L. Wagner, Assistant to the Secretary of Defense for Atomic Energy, accompanied by Dr. Ralph W. Alewine III, Director of the Geophysical Sciences Division, Defense Advanced Research Projects Agency [DARPA]; and the Honorable William W. Hoover, Assistant Secretary of Energy for Defense Programs.

I want to welcome them to the panel and I look forward to hearing their testimony.

You may proceed, Secretary Perle.

Mr. PERLE. Thank you——

Mrs. BYRON. Mrs. Holt is not here. Mr. Badham, do you have an opening statement?

Mr. BADHAM. I have Mrs. Holt's statement that I will present.

Mrs. BYRON. Please proceed.

STATEMENT OF HON. MARJORIE S. HOLT, A REPRESENTATIVE FROM MARYLAND, RANKING MINORITY MEMBER, SPECIAL PANEL ON ARMS CONTROL AND DISARMAMENT OF THE PROCUREMENT AND MILITARY NUCLEAR SYSTEMS SUBCOMMITTEE PRESENTED BY HON. ROBERT E. BADHAM, A REPRESENTATIVE FROM CALIFORNIA

Mr. BADHAM. Madam Chairman, I want to join you in welcoming the distinguished witnesses this morning. We are, of course, well acquainted with the outstanding work that they have been doing for our defense, and we have valued their advice over the years.

Mrs. Holt says that she particularly wants to express her appreciation, and I also join, to General Hoover who has served his country well for three decades: As a decorated officer of the U.S. Air Force, as the head of DOE's Office of Military Applications, and as Assistant Secretary of Energy for Defense Programs. I understand that this may be General Hoover's last appearance before us as Assistant Secretary of Energy, and we wish him well.

Madam Chairman, I fully agree with your assessment that the panel of witnesses scheduled for today and for Friday are the most knowledgeable individuals on nuclear weapons technical issues that can be found in the United States. In my opinion, it is important and appropriate that we obtain the best information possible on these issues, especially since a large number of our colleagues are, once again, proposing simplistic solutions to complex problems—proposed "cures" that may be worse than the disease.

I am referring, of course, to H.R. 3100, the latest "freeze" proposal or "Freeze III," and House Joint Resolution 3, that would attempt to force a comprehensive nuclear test ban.

The "freeze" that H.R. 3100 would impose appears to me to be more unilateral, less mutual, and less verifiable than any previous proposal. In addition, "Freeze III" is not the usual "sense of the Congress" resolution.

H.R. 3100 would cut off all funds appropriated for DOD and DOE in prior years, or for any other year, for strategic modernization or for modernization of tactical nuclear forces. It would kill all weapons R&D and testing, and in addition, it would prevent the assembly of any B-1's, Tomahawks, and any other nuclear weapon for at least 7 months after enactment of the bill. Meanwhile, the all-nuclear test facilities, the B-1 assembly facilities, Minuteman II and III rework facilities, MX and other missile assembly facilities would be closed down for at least a 7-month period.

I hope that the witnesses today have analyzed this new freeze proposal and are prepared to comment on its probable effect of our force structure and deterrent forces.

It is my hope, Madam Chairman, that we will have an opportunity before this session of Congress adjourns to invite the chief sponsors of House Joint Resolution 3 and H.R. 3100 to testify on the effect that those measures would have on our defense posture and what benefits could be expected if those measures were to become law.

Thank you, Madam Chairman.

Mrs. BYRON. Thank you very much.

Mr. Secretary, you may proceed.

STATEMENT OF HON. RICHARD N. PERLE, ASSISTANT SECRETARY FOR INTERNATIONAL SECURITY POLICY, DEPARTMENT OF DEFENSE

Mr. PERLE. Thank you very much, Madam Chairman.

I should like to thank you for inviting me to contribute to the special panel's deliberations on arms control. You have already heard from a number of administration officials on this subject, many of whom are involved directly in negotiations with the Soviet Union in a variety of bilateral and multilateral negotiations. I shall try not to repeat what they have had to say about the American position in those talks.

I should prefer simply to observe that a good deal of thought has gone into our various positions and that we have made a number of proposals with a view to negotiating agreements that would lessen the threat to our security in a manner that is militarily significant, equitable, balanced and verifiable.

In a number of cases, we have rejected the advice of prominent experts who have counseled us to put forward proposals that we believe would not only fail to diminish the threat we face, but would almost certainly increase it. Some of these proposals—the idea of a freeze, for example, or a comprehensive ban on nuclear testing—amount to little more than slogans which, however appealing to their proponents, fit better on T-shirts than into a serious national strategy.

From time to time our skepticism about proposals that are hopelessly vague or that would fail to achieve the purpose of their proponents has led our critics to question the seriousness with which we regard the subject of arms control and the depth of our desire to conclude agreements. I want to assure you that we view arms control with the utmost seriousness. And it is precisely because we desire deeply to conclude agreements that will protect our national security and the safety of our people and our democratic institutions that we have resisted the temptations of T-shirt diplomacy, even though the sponsors of House Joint Resolution 3 and H.R. 3100 have not.

HOUSE JOINT RESOLUTION 3

House Joint Resolution 3 calls upon the President to request the advice and consent of the Senate to ratification of the Threshold Test Ban Treaty signed in 1974. As members of this panel know, we have not sent the Threshold Test Ban Treaty forward for ratification because we are unable to verify compliance with its terms and because there is substantial evidence that the Soviets are violating it by testing at levels greater than 150 kilotons.

Messrs. Bedell, Leach, Markey, and others too numerous to list dance all around the issues of verification and compliance in urging that we ratify an unverifiable threshold test ban and then propose an equally unverifiable comprehensive test ban to the Soviet Union. I have not the slightest doubt that the Soviets would cheerfully agree to a comprehensive ban on nuclear testing. But such an agreement would be adhered to unilaterally—by the United States—while the Soviet Union continued surreptitiously to test in a manner that we could not reliably detect.

I must say that I find the confidence that Bedell, Leach and Markey continue to attribute to Soviet undertakings in this area more than a little naive. Simply asserting that a comprehensive test ban "must be adequately verifiable," as House Joint Resolution 3 does in paragraph 5, is no substitute for the reality that such a ban would not be verifiable—a reality made all the more salient by the massive Soviet cheating that the President has reported to the Congress on a variety of other arms control agreements, including SALT and the ABM Treaty.

Should House Joint Resolution 3 pass—and I hope it will not—it would merely encourage the Soviet Union to continue to refuse to sit down with the United States to discuss measures that might improve the verifiability of the unratified threshold test ban to the point where we could responsibly recommend that the Senate gives its consent to ratification.

So concerned are the Soviets to avoid discussing the verifiability of the threshold test ban that they have, until now, refused even to send their technicians to our Nevada test site to measure for themselves an American underground nuclear test. I find this disappointing, but hardly surprising. One cannot blame Mr. Gorbachev for being as unresponsive to President Reagan as the sponsors of House Joint Resolution 3.

My colleague, Richard Wagner, whose excellent testimony I have read, will discuss in greater detail the many reasons why we believe that so long as we base our security and that of our allies, on nuclear weapons it would be most unwise to cease testing them.

For reasons of safety, security, reliability and confidence, we are compelled to test. And for all the talk about verifying a mutual ban on testing, the impact of such a ban would not be mutual at all. It would greatly favor the Soviet Union for reasons that Richard will elaborate. And, of course, it would not be verifiable.

But let us suppose for a moment that a comprehensive ban on nuclear weapons testing were mutual in effect—that is, it would constrain us and the Soviets in equal measure—and be wholly verifiable. Would it be safe to assume that the Soviets would not cheat? I am unaware of any effective action to bring an end to current Soviet cheating that has been mounted by the many sponsors of House Joint Resolution 3, a resolution introduced in the House almost 2 years after President Reagan first found, and reported to the Congress, that the Soviets were violating the most important arms control agreements that exist between us.

There was, as I recall it, a sternly worded letter to Mr. Gorbachev signed by a number of House Members some months ago deploring one such violation, the construction, contrary to the ABM Treaty, of a radar at Krasnoyarsk. Some of the signers are sponsors of House Joint Resolution 3. I don't know whether they ever got a reply from Gorbachev, but I do know that the construction of the illegal radar continues.

The point I wish to make is that until the Soviets cease the many violations of current agreements that have been the subject of two Presidential reports, we can hardly look forward with confidence to their compliance in the future. And arms control without Soviet compliance is unilateral disarmament no matter how often its proponents use the words "mutual and verifiable" in their speeches and resolutions.

H.R. 3100

Madam Chairman, I should like to conclude with a word or two about H.R. 3100, a 17-page caricature wherein Congressman Markey can be seen overreacting to the criticism that his 1984 version of the nuclear freeze was too simple. I would give anything to hear the KGB briefing the Soviet arms control agency on what Markey and his colleagues are up to, but the Soviets don't have an arms control agency—and they certainly don't have anyone who thinks like Congressman Markey—so I suppose I will never know how H.R. 3100 is regarded in the Kremlin.

I can tell you how I regard it. It is perhaps the silliest piece of legislation that I have seen in almost 20 years of observing the

Congress. No one who could vote for it with a straight face should be permitted to use the word "serious" in any sentence in which the words "arms control" are to be found.

The process of developing arms control agreements that are serious—carefully conceived, analyzed, formulated, proposed, negotiated and implemented—is difficult, complex, and uncertain. Arms control agreements cannot be wished into existence just as they cannot be legislated in Washington.

I believe that this administration has worked hard to present serious proposals on intermediate nuclear forces, on strategic nuclear forces, on chemical weapons, on confidence-building measures, on mutual and balanced force reductions, and on nuclear testing. And we have endeavored to obtain Soviet agreement to those proposals.

We will continue to do so despite the many obstacles erected by the Soviets and despite the encouragement they draw from legislative measures like House Joint Resolution 3 and H.R. 3100. In doing so, I want to assure you that we will set for ourselves as an administration and for our country the standard to which I alluded at the opening of these remarks.

The agreements that we seek must be militarily significant, equitable, balanced and verifiable, and I would add one last criterion. They must not be of such a nature that, were the Soviets to violate them, they would jeopardize our fundamental national security interests. Our experience with Soviet violations has been sobering; and a continuation of the pattern of violations that we are now observing can only diminish further the scope for agreements between us.

Madam Chairman, I would like to conclude those opening remarks. I will be pleased to respond to any questions that the panel may have. I have avoided getting into a lot of detail because I know you have received a great deal of testimony.

PREPARED STATEMENT OF HON. RICHARD N. PERLE

Madam Chairman, I should like to thank you for inviting me to contribute to the Special Panel's deliberations on arms control. You have already heard from a number of administration officials on this subject, many of whom are involved directly in negotiations with the Soviet Union in a variety of bi-lateral negotiations. I shall try not to repeat what they have had to say about the American position in those talks. I should prefer simply to observe that a good deal of thought has gone into our various positions and that we have made a number of proposals with a view to negotiating agreements that would lessen the threat to our security in a manner that is militarily significant, equitable, balanced and verifiable.

In a number of cases we have rejected the advice of prominent experts who have counseled us to put forward proposals that we believe would not only fail to diminish the threat we face but would almost certainly increase it. Some of these proposals—the idea of a freeze, for example, or a comprehensive ban on nuclear testing—amount to little more than slogans which, however appealing to their proponents, fit better on T shirts than into a serious national strategy.

From time to time our scepticism about proposals that are hopelessly vague or that would fail to achieve the purpose of their proponents has led our critics to question the seriousness with which we regard the subject of arms control and the depth of our desire to conclude agreements. I want to assure you that we view arms control with the utmost seriousness. And it is precisely because we desire deeply to conclude agreements that will protect our national security and the safety of our people and our democratic institutions that we have resisted the temptations to T shirt diplomacy, even though the sponsors of H.J. Res 3 and H.R. 3100 have not.

H.J. Res 3 calls upon the President to request the advice and consent of the Senate to ratification of the threshold test ban treaty signed in 1974. As members of this Panel know we have not sent the threshold test ban treaty forward for ratifica-

tion because we are unable to verify compliance with its terms and because there is substantial evidence that the Soviets are violating it by testing at levels greater than 150 kilotons. Messrs Bedell, Leach, Markey and others too numerous to list dance all around the issues of verification and compliance in urging that we ratify an unverifiable threshold test ban and then propose an equally unverifiable comprehensive test ban to the Soviet Union. I have not the slightest doubt that the Soviets would cheerfully agree to a comprehensive ban on nuclear testing. But such an agreement would be adhered to unilaterally—by the United States—while the Soviet Union continued surreptitiously to test in a manner that we could not reliably detect.

I must say that I find the confidence that Bedell, Leach and Markey continue to attribute to Soviet undertakings in this area more than a little naive. Simply asserting that a comprehensive test ban "must be adequately verifiable," as H.J. Res 3 does in paragraph five, is no substitute for the reality that such a ban would not be verifiable—a reality made all the more salient by the massive Soviet cheating that the President has reported to the Congress on a variety of other arms control agreements including SALT and the ABM Treaty.

Should S.J. Res 3 pass (and I hope it will not) it would merely encourage the Soviet Union to continue to refuse to sit down the United States to discuss measures that might improve the verifiability of the unratified threshold test ban to the point where we could responsibly recommend that the Senate ratify it. So concerned are the Soviets to avoid discussing the verifiability of the threshold test ban that they have, until now, refused even to send their technicians to our Nevada test site to measure for themselves an American underground nuclear test. I find this disappointing but hardly surprising. One cannot blame Mr. Gorbachev for being as unresponsive to President Reagan as the sponsors of S.J. Res 3.

My colleague Richard Wagner, whose excellent testimony I have read, will discuss in greater detail the many reasons why we believe that so long as we base our security, and that of our allies, on nuclear weapons it would be most unwise to cease testing them. For reasons of safety, security reliability and confidence we are compelled to test. And for all the talk about verifying a mutual ban on testing the impact of such a ban would not be mutual at all. It would greatly favor the Soviet Union for reasons that Richard will elaborate. And, of course, it would not be verifiable.

But let us suppose for a moment that a comprehensive ban on nuclear weapons testing were mutual in effect—that is, it would constrain us and the Soviets in equal measure—and wholly verifiable. Would it be safe to assume that the Soviets would not cheat? I am unaware of any effective action to bring an end to current Soviet cheating that has been mounted by the many sponsors of H.J. Res 3, a resolution introduced in the House almost two years after President Reagan first found, and reported to the Congress, that the Soviets were violating the most important arms control agreements that exist between us.

There was, as I recall it, a sternly worded letter to Mr. Gorbachev signed by a number of House members some months ago deploying one such violation, the construction, contrary to the ABM Treaty, of a radar at Krasnayarsk. Some of the signers are sponsors of H.J. Res. 3. I don't know whether they ever got a reply from Gorbachev but I do know that the construction of the illegal radar continues.

The point I wish to make is that until the Soviets cease the many violations of current agreements that have been the subject of two Presidential reports we can hardly look forward with confidence to their compliance in the future. And arms control without Soviet compliance is unilateral disarmament no matter how often its proponents use the words "mutual and verifiable" in their speechs and resolutions.

Madam Chairman, I should like to conclude with a word or two about H.R. 3100, a 17 page charicature wherein Congressman Markey can be seen over-reacting to the criticism that his 1984 version of the nuclear freeze was too simple. I'd give anything to hear the KGB briefing the Soviet arms control agency on what Markey and his colleagues are up to. But the Soviets don't have an arms control agency—and they certainly don't have anyone who think like Congressman Markey—so I suppose I'll never know how H.R. 3100 is regarded in the Kremlin.

I can tell you how I regard it. It is perhaps the silliest piece of legislation I have seen in almost 20 years of observing the Congress. No one who could vote for it with a straight face should be permitted to use the word serious in any sentence in which the words arms control are to be found.

The process of developing arms control agreements that are serious—carefully conceived, analyzed, formulated, proposed, negotiated and implemented—is difficult, complex and uncertain. Arms control agreements cannot be wished into existence

just as they cannot be legislated in Washington. I believe that this Administration has worked hard to present serious proposals on intermediate nuclear forces, on strategic nuclear forces, on chemical weapons, on confidence building measures, on mutual and balanced force reductions, on nuclear testing. And we have endeavored to obtain Soviet agreement to those proposals. We will continue to do so despite the many erected by the Soviets and despite the encouragement they draw from legislative measures like H.J. Res. 3 and H.R. 3100. In doing so I want to assure you that we will set for ourselves as an administration and for our country the standard to which I alluded at the opening of these remarks. The agreements that we seek must be militarily significant, equitable, balanced and verifiable. And I would add one last criterion. They must not be of such a nature that, were the Soviets to violate them, the would jeopardize our fundamental national security interests. Our experience with Soviet violations has been sobering; and a continuation of the pattern of violations that we are now observing can only diminish further the scope for agreement's between us.

Mrs. BYRON. What is your timeframe this morning?

Mr. PERLE. I can stay for about an hour.

Mrs. BYRON. OK. I think if you don't mind we will have Secretary Wagner's testimony and then ask questions to the two of you because I think some of our questions might overlap since the testimony is in the same area, if that is permissible.

Mr. PERLE. All right.

Mrs. BYRON. Secretary Wagner.

STATEMENT OF HON. RICHARD L. WAGNER, ASSISTANT TO THE SECRETARY OF DEFENSE FOR ATOMIC ENERGY, ACCOMPANIED BY DR. RALPH W. ALEWINE, III, DIRECTOR, GEOPHYSICAL SCIENCES DIVISION, DEFENSE ADVANCED RESEARCH PROJECTS AGENCY

Dr. WAGNER. Madam Chairman, let me simply say for myself how happy I am to be here to be able to give you my views on these issues and to congratulate you and the panel on holding these hearings to get these facts into the record.

I would like to concentrate this morning on issues related to the test ban itself as opposed to the broader issues of arms control in general.

You have heard several previous speakers address various issues related to nuclear test bans. The Arms Control and Disarmament Agency has stated that it is the policy of this administration that a further extension of the nuclear test ban regime is not in the national security interest of the United States at this time—that a comprehensive test ban is a long-range goal, but that it can only come in the context of extensive progress in those aspects of arms control which actually limit and control nuclear weapon force structure, so that we would not need to rely as much as we do today on those aspects of deterrence to which nuclear warhead design contributes. When that time comes, any further extension of the test ban regime must, of course, be adequately verified.

You will hear the DOE and the directors of the nuclear labs state that nuclear weapons testing is essential to continuing development of those features in the nuclear warheads which contribute to their deterrent value. They will also tell you that nuclear testing is essential to maintain confidence in the reliability of the stockpile which exists today or in the future.

You have heard Mr. Perle describe why the provisions of House Joint Resolution 3 and H.R. 3100 would be counterproductive to our objectives of national security and truly effective arms control.

Mr. STRATTON. Madam Chairman, I can't follow the witness' statement.

Dr. WAGNER. I am sorry, Mr. Stratton. I was going to submit that statement for the record and read a shorter section of the statement which I believe contains particularly important point, and, in fact having said that, I do have this longer statement for the record.

Mrs. BYRON. We will submit that for the record.

Dr. WAGNER. You will also hear several speakers address the various approaches to verification of test bans using seismic methods or other means, including incountry techniques.

These discussions of seismic verification, I am sure you will agree, tend to be quite arcane, depending on theories about geophysics and complicated statistical analysis, all of which makes them hard to apply in the real world process of judging Soviet compliance with test bans.

My own prepared statement summarizes many of these points, but this morning I would like to add to this body of information the following point, which I believe is central to your considerations here. It is that an important reason why a further extension of the test ban regime at this time would not be in the national interest of the United States is that the United States almost certainly relies considerably more on nuclear warhead design for achievement of our national security objectives than does the Soviet Union. Let me develop this point a little further for you.

TECHNOLOGIES NECESSARY FOR NATIONAL SECURITY

The United States relies on a great variety of technologies to achieve our national security objectives. These include such things as missile guidance accuracy, submarine quieting, satellite surveillance, communications, and many more—and, of course, the technology of nuclear warhead design.

There is a similar list for the Soviet Union, also including the technology of nuclear warhead design. I believe that among those many contributions of technology to deterrence, the United States relies more on the contributions of warhead technology than does the Soviet Union.

Two examples that I can speak to here relate to, first, the safety, security and control of the weapons, which are fundamental to our ability to have and deploy nuclear weapons at all; and second, the yield, weight, and size of the warheads, which determine directly the military effectiveness of the weapons systems and their ability to threaten the targets necessary to make deterrence effective.

The United States has standards of safety for our nuclear weapons which are almost certainly higher than those required by the Soviet Union. We have, and I have little doubt the Soviets also have, highly effective means to preclude an actual nuclear explosion in any accident involving a nuclear weapon. But for us, there is a great deal more to nuclear warhead safety than this.

For example, we go to great lengths in warhead design to preclude even dispersal of radioactive material in an accident. The hazard from such dispersal is moderate but, by the standards of our society, unacceptable.

Similarly, we stringently limit the already low levels of radiation emitted by the warhead to ensure minimum possible radiation exposure to troops maintaining and transporting the weapons in peacetime.

By contrast, everything we know about safety practices in the Soviet Union, and there is a lot of evidence, says that they would simply not be concerned about such things, and would not develop warhead design features for these reasons.

I believe there is a similar asymmetry with regard to security and control features in the warheads. The United States and, no doubt, the Soviets as well have highly effective means to prevent unauthorized launch of nuclear weapons by those who have legitimate custody of the weapons. But partly because of the open nature of democratic societies, we go to great lengths to build features into our warheads to protect against actions of outsiders—terrorists, psychotics, et cetera.

In contrast, the Soviets almost certainly can rely much more on rigid controls over their populace, and on controls external to the warheads, rather than having to rely on warhead design.

There is also a striking asymmetry in the extent to which the two nations need to maximize the yields for a given warhead weight, or miniaturize the warheads at a given yield. For decades, the Soviet Union has had an extensive program to harden, disperse and hide its national security assets, including not only its weapons and military forces, but its military-related industries and its leadership.

We have only recently come to understand the remarkable extent of this program. In contrast, most locations in the United States which the Soviets might target are soft—with the exception of Minuteman silos and a few other sites—and their locations are well known. Since the Soviets have now achieved essentially the same delivery accuracies, and since their missile throw weight is much greater, the Soviet Union almost certainly does not need to optimize the yield-to-weight ratio of its warheads to the extent that the United States must—even for the smaller warheads that are now entering their inventory.

In a classified discussion, I could add other similar examples of how differences in the strategic objectives, the delivery systems, and the political and societal perspectives of the United States and the Soviet Union require us to rely more on advanced technology warhead designs than the Soviet Union.

U.S. STOCKPILE OLDER THAN THE SOVIETS'

One final point is that, on the average, the warheads in the United States stockpile are older than those in the Soviet stockpile. This is basically because the Soviets began large quantity production later than the United States, and because in the last decade they have had a much more aggressive system modernization program than the United States.

This fact—which was perhaps to our advantage in the 1970's—now means that their stockpile contains technology more recently developed by their design labs than does ours. It would also be an advantage to them with regard to unreliability which might creep into static stockpiles due to aging during a comprehensive test ban.

Therefore, to whatever extent Soviet proposals for further limitation of nuclear testing may be serious and genuine, rather than only for political or propaganda purposes, I believe it is because of this asymmetry in the needs of the two nations for this technology that further limitations on testing would be to Soviet advantage—even if we could adequately verify testing limitations, which we cannot.

Therefore, as long as we must continue to rely on technology and its contributions to safety, effectiveness, collateral damage reductions, and survivability, nuclear testing and a strong deterrent posture will remain inseparable. Consequently, even if verification were not a concern—and it is—under present circumstances, a total test ban would not serve our national security interests.

Madam Chairman, that concludes what I wanted to say and I, too, will be happy to accept questions.

PREPARED STATEMENT OF HON. RICHARD L. WAGNER, JR.

Madan Chairman and members of the panel, it is my pleasure to appear before you to discuss the Department of Defense's perceptions of this country's nuclear weapons test program in the context of various treaties which could impact that program. I will particularly focus on the impact of a total ban on testing. Much of what I have to say today will be flavored by by prior technical experience. Before being appointed to my present position in the Department of Defense, I was the associate director for testing at Lawrence Livermore National Laboratory, and before that I was responsible for a major part of that laboratory's design program. But my thoughts go beyond that experience, specifically, there has been a growing confirmation on my part that if we, as a society, elect to remain free and at peace, we have no other alternative available to us at this but to maintain the effectiveness of our strategic and tactical nuclear deterrent. True, we are now undertaking research to examine the possiblity of moving away from a deterrence posture based on the threat of nuclear retaliation toward a posture based on strategic defense. That course is being carefully investigated. and we hope it will eventually lead us to a world described by President Reagan as one secure from the menace of nuclear weapons—but we are not there yet. Unitl such time as we are, we must be exceedingly cautious that our actions, even our best intended actions, do not adversely impact our nuclear deterrent vis-a-vis the nuclear forces of the Soviet Union.

In looking at this issue, let me first review how nuclear testing fits into our national security posture and why, because of the need for caution, we must carefully scrutinize any ban on nuclear testing.

As it has for the last four decades, the security of the United States and its allies today depends upon our maintaining a credible nuclear deterrent. Nuclear testing assures the credibility of this deterrent, permitting us to modernize in response to new challenges, and to maintain the reliability of those weapons already stockpiled. I should add that we have had to sustain this deterrence in the face of the unprecedent and unilateral Soviet buildup of nuclear weapons particularly over the last fifteen years.

Testing is indispensable to the nuclear weapons development process. It is the means by which we insure that the warheads and weapon systems are safe and secure, that they are reliable and effective, that they could, if required, perform their military missions with as little collateral damage as possible and, perhaps most important for the stability of deterrence, that the weapons systems themselves are survivable. Let me treat each of these contributions briefly in turn.

In the democracies, there is, and must always be, a special relationship of trust between our people and those who are responsible for developing and maintaining these weapons. To honor this trust, we must insure that nuclear weapons are safe, secure, an controlled. With us, this is not a matter of cost trade-offs or of stonping at

some point deemed "safe enough." Rather, nuclear weapon safety must be absolute. As the requirements of deterrence change, and as the characteristics of the systems of which nuclear warheads are a part change, this requirement for safety remains immutable, but the highest standards of safety and security cannot be assured without nuclear testing. While reasons of classification preclude my being more specific in an open forum, a substantial portion of our testing program since 1962 had gone toward enhancing the safety and security of nuclear weapons. The fact is that many of the most effective safety features which we have incorporated into our nuclear weapons today probably would not be there had we not been able to test.

As to weapon effectiveness, one aspect—certainty in the reliability of the warheads—warrants some elaboration. Testing is vital for establishing and maintaining confidence in the operability and reliability of nuclear weapons, just as realistic testing is essential for aircraft, radars, or any other complicated equipment. Few thinking persons would suggest that we build a strategic bomber which we would not fly until the Klaxon sounded. Yet, a comprehensive test ban treaty (CTBT) would preclude the testing of the nuclear weapon that bomber and its crew might be called on to deliver. I hope the proponents of a CTBT realize the import of this inconsistency. Of course, some would contend that we could determine the operational parameters of nuclear weapons through computer simulations and component testing. The same could be said for bombers, but hard experience—recent hard experience—has shown us that calculations do not suffice; and even though we have made enormous strides in simulation testing, the fact remains that there is no way to experimentally simulate the total performance of a nuclear weapon. This observation is especially the case for us where dimensional and weight constraints and our concerns for safety and security have forced us to employ more complex and sophisticated designs. Thus, nuclear testing contributes directly to our confidence in the reliability and operability of our nuclear deterrent. Confidence, in turn, goes to the very heart of stability.

Similarly, a substantial fraction of our development effort has sought to reduce the potential for collateral damage—that is, damage not needed to secure deterrence. Reducing potential collateral damage, if deterrence were to fail, is not only a moral imperative; it also has a direct relationship to deterrence. A deterrent posture would be less credible in a crisis situation if an adversary though we might not retaliate because of the consequences of excessive destruction. Nuclear testing is vital to this line of development as well. Indeed, nuclear testing was an important tool which permitted us to reduce the total megatonnage of our stockpile by over three-fourths since 1960.

With regard to survivability, it is a central tenet of our understanding of deterrence that nuclear weapons systems must not present easy targets for enemy attack, otherwise they would create incentives, particularly in a crisis situation when deterrence would be most stressed, for the enemy to capitalize on such vulnerabilities. Nuclear testing contributes to survivability—and crisis stability—in two ways. The first is by developing warheads with characteristics which allow the systems of which they are a part to be more survivable. For example, if the warhead can be made smaller the entire delivery system can be made smaller and, therefore, considered more difficult to locate, more easily hardened, or given extended range. The other way in which nuclear testing contributes to survivability is by exploring the complex effects of nuclear weapons so as to insure that our systems and their basing modes do not have unanticipated or hidden flaws. Although these system-hardening and effects tests are not much discussed and constitute a minor portion of our total test program, they are absolutely essential for survivability and, thus, are vital for deterrence.

Therefore, it is by its contributions to safety, effectiveness, collateral damage reductions, and survivability that nuclear testing is essential to our national security interest. As long as we are obliged to rely on retaliatory nuclear capabilities to secure deterrence, nuclear testing and a strong deterrent posture will remain inseparable. Consequently, even if verification were not a concern—and it is—under present circumstances, a total test ban would not serve our national security interests.

Not only would a CTBT be contrary to national security interests, a total ban on the testing of nuclear weapons at this time would not serve the interest of arms control. As I have indicated, a comprehensive test ban would degrade the security of the United States and, thus, international stability. Without nuclear testing, the credibility of our nuclear deterrent would erode, as would our confidence in the reliability of the nuclear stockpile and in our nuclear technology base. This latter aspect would include a diminution of the expertise of nuclear weapon designers and

engineers. While we cannot predict or measure the exact rate of this erosion, we are certain that it would occur.

It is sometimes wrongly argued that, absent testing to maintain confidence in reliability, nuclear weapons systems would lose their utility and would, in some undefined way, wither away. This belief may make a nice theory, but in the real world what would happen is that both sides would compensate for worst-case estimates of unreliability by using higher yields and deploying more warheads. Indeed, such pressures could be damaging to arms control efforts to reduce force levels—efforts that are much more important than any putative benefits of a test ban. Moreover, any decreased warhead reliability would carry us in the wrong direction as far as stability is concerned. Relying on uncertainty to accomplish nuclear disarmament, and especially on symmetry of uncertainty, is literally rolling dice for the future of the world.

A comprehensive test ban treaty, therefore, at best would be only an indirect, ineffective approach to achieve reductions and eventual elimination of United States and Soviet nuclear weapons. At its worst, such a treaty would be destabilizing and would increase the very forces which have historically caused arms building—insecurity and doubts as to the effectiveness of extant weapon systems.

Potential erosion of nuclear capability would not necessarily occur symmetrically, and we would not even be able to gauge any resulting disparity. In contrast, given our open society, the Soviets would probably come to know about problems we might have. Furthermore, since the Soviets are believed to be more conservative in their designs than the United States, the Soviet stockpile could be more durable in a nuclear environment. Certainly their missile throw-weight advantage would enable them to fall back on heavier, even more conservative designs, which generally should be more reliable and durable during a complete ban on testing.

Of course, asymmetries disadvantageous to the United States could also develop if the Soviet Union covertly violated the test ban. While we cannot predict future Soviet behavior, the Soviet record of noncompliance with arms control agreements increases our concern in this regard. The Soviet Union certainly would be tempted to do whatever it deemed necessary to maintain the reliability of its nuclear forces, arms control obligations notwithstanding.

At a time when the temptation to violate a CTBT could be the strongest, the United States would not be able to verify compliance effectively because of the limitations in the capabilities of our national technical means. This would be true particularly if the Soviets (or others) actively took steps to evade surveillance. The Soviet Union could conduct clandestine tests to maintain the credibility of their nuclear forces, design some new nuclear systems, and maintain the skills of their weapons designers. In our own experience, we have seen that even one low-yield test could mean the difference between having a reliable weapon in the stockpile and not having that weapon.

Techniques to avoid or reduce the risks of being detected are many. Tests could be conducted in cavities, thereby decoupling the energy of the explosion from the surrounding medium. The technique could enable a violator to test at militarily significant yields, approximately 10 kilotons or so, without producing seismic signals that we could detect or distinguish from those of earthquakes. Tests could be undertaken in outer space, in remote ocean areas, or in the atmosphere above remote parts of the world. A CTBT would increase the incentives for going to these environments where U.S. capability to verify compliance is most marginal. Even if we were able to detect and identify nuclear tests in these environments, we may not be able to attribute the test to a particular Nation with the requisite proof. Even if we collected samples of debris from the event, we would find that various isotopic ratios are not uniformed or radioactive debris. Finally, a violator could use evasion to mask covert nuclear tests. This evasion method could enable the Soviets to test several times a year and even as twice a year at appreciable yields.

Of course, these covert methods are hypotheses although the Soviets have already at least experimented with partially decoupled tests. But one fact is certain, the nature of the Soviet system would permit the Soviet Union to keep its most skilled technical people in the weapons program and to keep their skills fresh, thereby possibly through clandestine testing. In addition, they centralized economy would facilitate efforts to maintain a vigorous nuclear weapons program. By contrast, as we learned during the 1958-61 moratorium on nuclear testing, U.S. weapon designers, engineers, and testing personnel will have the weapons program for more challenging fields. The loss of these people, who would comprise the corporate body of U.S. test experience, will prevent the United States from promptly resuming nuclear testing in the face of a Soviet breakout. Perhaps more serious, restarting multiple

asymmetries in the needs of the two nations that further limitations on testing would be advantageous to the Soviet Union.

Because of these potential asymmetries and uncertainties, a comprehensive test ban would increase the U.S. probabilities in the strategic balance that we are trying to eliminate, partly through arms control. This eventually is the reason we believe that negotiations on direct arms reductions are the most important item on the arms control agenda. Only carefully planned, programmed, and verifiable arms reductions offer the possibility of increased stability and reduced risks of nuclear war. Indirect means are potentially disastrous.

President Reagan has consistently advocated, and is now pursuing in the negotiations in Geneva, deep reductions in the levels of nuclear weapons in the world. It is the administration's view that deterrence can and should be maintained with much smaller numbers of weapons on both sides, provided those reductions are equitable, verifiable, and contribute to stability. Secretary Gorbachev has also mentioned the possibility that the nuclear arsenals of the Soviet Union and the United States could be reduced. To date, these proposals, made to the press and various U.S. delegations, have not been forthcoming at Geneva.

But we believe that the President's persistence in this area could start a process leading eventually to less reliance on those factors which nuclear testing controls one to determine. It must be said, however, that when and if that time comes and the nuclear regime can be safely extended, requirements for certainty of compliance must be even more stringent, because at lower force levels, evasive testing could provide greater leverage.

So the ultimate guarantee of Western security, the United States must be concerned with both the security dimension of test bans and the verification dimension. We are working on many fronts, in bilateral and multilateral fora, to create secure conditions under which an expansion of the nuclear regime would enhance rather than diminish stability. We trust that everyone genuinely interested in world security at lower levels of all armaments will support the President's efforts.

Now I would like to speak about a CTBT in the context of our efforts to control the proliferation of nuclear arms since it is frequently asserted—I believe wrongly so—that a test ban ban is essential to our nonproliferation objectives. However, when this assertion has been subjected to the same critical scrutiny as other arguments supporting a test ban, it has gone wanting.

Firstly, it is difficult to see how a nuclear test ban could guarantee that the non-nuclear weapon states would forswear the acquisition of nuclear weapons. A given country's quest to become a nuclear weapon state is governed by two principal factors. First, the country must have a desire to develop a nuclear explosive capability. Second, once having decided to develop a nuclear option, the country must have access to technology and materials necessary for the fabrication of a nuclear device. The first factor is likely to represent a complex mixture of external threats, external status, internal pride, and perhaps even outright scientific curiosity. In any case, in a world splintered by continual and violent aggression, regional tensions, and a host of world upheavals, the first factor alone goes wanting. But, nuclear testing by the United States or the Soviet Union, for that matter, adds little or nothing to either factor.

Ironically, a nuclear test ban in some ways could actually encourage proliferation. For example, if a party was under the protection of U.S. nuclear guarantees but lacked confidence in U.S. nuclear capability, it might well decide that its security interests required the acquisition of an indigenous nuclear force.

Moreover, we need to remember that a potential proliferator, who chooses to be bound by a test ban, could still produce unsophisticated nuclear weapons without testing. Such an primitive weapon could have a significant military impact in regional conflicts even though there would be some uncertainty in the yield and performance of such a weapon. It is worth noting that even in 1945 when nuclear technology was still in its infancy, the United States did not need a preliminary test of the first nuclear weapon used in war.

I will now devote some discussion to the still unratified threshold test ban and peaceful nuclear explosion treaties. In 1974, the United States and the Soviet Union each signed an agreement to observe the 150-kiloton threshold set by the threshold test ban treaty (TTBT) and the peaceful nuclear explosions treaty (PNET), and on several occasions since then, reaffirmed that commitment. Neither side has requested an extension nor is ready for new moves. Therefore, each side has an obligation under international law to observe the 150-kiloton threshold. The United States has done so. It is likely that the Soviet Union has not.

Several Soviet tests since 1974 had yields estimated by the United States to be above 150 kilotons. However, large uncertainties in our estimates have prevented us from determining conclusively whether the Soviet Union is, in fact, violating the

150 kiloton limit. As stated by the President in his January 1984 and February 1985 reports to Congress on Soviet noncompliance with arms control agreements, while available evidence remains ambiguous and we have been unable to reach a definite conclusion, available evidence indicates that a number of Soviet nuclear tests likely exceeded the TTBT 150 kiloton threshold.

Unfortunately, the United States cannot, at present, effectively verify the TTBT and the PNET because of these large uncertainties in our capability to estimate Soviet nuclear test yields. Although the TTBT protocol calls for data exchanges upon ratification, intended to reduce these uncertainties, the exchanges are not considered to be an effective aid to verification, because the data are too limited and no provision is included for their independent validation.

The provisions of the PNET protocol do provide for direct on-site yield measurements, and these provisions are often called precedent-setting. In reality they are essentially meaningless. Measurements of Soviet peaceful nuclear explosions (PNE's) by U.S. personnel would require Soviet approval for any explosion with a planned aggregate yield exceeding 100 kilotons but not exceeding 150 kilotons. Direct measurements become mandatory only for a group of simultaneous explosions with a planned aggregate yield exceeding 150 kilotons up to the limit of 1500 kilotons. Since Soviet agreement to mandatory on-site inspections (OSI's) in this instance is so contrary to their traditional opposition to mandatory OSI's, it is highly unlikely that the Soviet Union ever forsaw a need for PNE's with yields over 150 kilotons so the provisions for OSI's will likely never be exercised. In fact, according to current yield estimates, it is unlikely that any Soviet PNE's since 1976 had yields high enough to have required mandatory yield measurements by U.S. personnel even if the treaty had been ratified.

As I indicated, our experience in attempting to verify Soviet compliance with the 150 kiloton threshold of the TTBT using seismic methods has offered a pointed illustration of the limitations inherent in the seismic technique. These difficulties have convinced us that seismic methods, while important, must be augmented by numerous methods to verify compliance with test bans in general.

One factor which limits the usefulness of seismic methods is that seismic data on any one test have such large associated uncertainties that compliance judgments may be based on statistical analyses of seismic data and other information accumulated from tests over months, even years. Thus, today, seismic data lacks the specificity and immediacy which are so important in the real-world process of forming, and then acting on, judgments about compliance. For this reason, better means for verifying compliance with the TTBT must be found.

We have invited the Soviets on several occasions to work with us to achieve such improvements, but to date, they have not accepted any of our invitations. In this regard, the President made a proposal in the United Nations on September 24, 1984, for the two sides to find a way to exchange experts at one another's test sites to measure directly the yields of nuclear weapons tests. In addition, on July 29, 1985, we invited the Soviets to come to our test site, bring any equipment they deemed necessary to verify nuclear test yields, and make the measurements necessary to determine the yield of one of our tests. However, they have reacted negatively to these proposals. This response is unfortunate since direct yield measurements would have significantly lower uncertainties for both parties.

Looking further into the future, this need for statistical interpretation of seismic data, which undercuts its utility in TTBT verification, may also be a weakness that is a more general concern. While it is true that the particular problems which will be associated with possible future test-ban regimes cannot be fully anticipated, we do know some of them, and it is clear that greatly improved verification methods will be essential. We have not yet arrived at the requisite point of capability and understanding. Therefore, it is important to continue to improve our research base from which to derive improved verification techniques, both seismic and direct, for the current TTBT and a possible test-ban regime in the future.

In conclusion, while the world we live in remains and rapidly changing, the ultimate goal of American defense remains constant: To preserve the peace and maintain our freedoms. To achieve those goals, our nuclear arsenal must be of adequate strength and dependability to dissuade the Soviet Union from attacking our Nation and its allies. The cost of aggression must always exceed the benefits the aggressor seeks to accomplish. Because our arsenal and resolve have been adequate for 40 years, the tremendous military potential of the Soviet Union has been held in virtual check—no nuclear weapons have been fired in anger, and we are still a free people. By any measure, deterrence has been successful. Thus, we must carefully evaluate any action which could undercut this demonstrated success. For the reasons I have stated, we feel that a ban on the testing of nuclear weapons is one such

action which could lead to greater instabilities and would, therefore, not serve the interests of deterrence or of world peace. The peace sought so genuinely and earnestly by the proponents of a CTBT would be more in jeopardy, not less.

That concludes my formal testimony, and I would be happy to answer questions.

Mrs. BYRON. Thank you very much. Let me pursue a couple of questions, some that I asked the other day to some of our ambassadors.

Mr. Perle, let me take a look at what we have seen transpiring within Russia in the last 6 to 8 months with the many changes. We have a new change with Gorbachev, we have a new change with a new foreign minister. We have not so far seen changes in the ambassadorial level on the arms control discussions.

Whether there will be changes when some of the groups return to Geneva and Vienna for the next round is one of the things you never know until they open the door and descend at the beginning of the talks, but do you feel that there is going to be any change of input or, younger outlook within the dialog

WILL SOVIET ATTITUDES CHANGE IN GENEVA?

Mr. PERLE. Well, it is, obviously, difficult to be certain about judgments of this nature, but we have seen no change thus far in the positions advanced by Soviet negotiators. We have begun to see a bit of a change in the propaganda that surrounds those proposals, but with respect to the proposals themselves, there has been quite striking continuity, reaching back into the two previous Soviet administrations, and I don't expect frankly to see a dramatic change.

Mrs. BYRON. Do you feel that is because Gorbachev is probably more concerned currently with internal affairs, getting that straightened out as opposed to the thrust toward the arms control negotiations or does it still fit a very high priority and profile?

Mr. PERLE. I don't believe that arms control was a particularly high priority for Chernenko or Andropov or, for that matter, Brezhnev. I think all three looked for opportunities to encumber the American Strategic Modernization Program and saw negotiations as one instrument to accomplish that purpose. I think all three saw arms control negotiations in Geneva as one possible instrument for unraveling the decision taken by NATO in December 1979 to offset the Soviet medium-range missile deployments in Europe. But judging by the proposals put forward under all three Soviet administrations, I think it would be difficult to conclude that they were serious about reaching arms control agreements, although they are quite serious about propagandizing with respect to arms control.

Mrs. BYRON. Do you really believe that we can reach a verifiable agreement?

Mr. PERLE. I think we can conceive of such agreements, analyze them, formulate them carefully and put them on the table, and I believe we have done that with respect to a number of negotiations. I mentioned some of them in my statement, but getting the Soviets to agree to those proposals has thus far proven impossible. They would prefer agreements between us that permit their forces to increase, that permit them to continue with their military buildup, and that are marginal with respect to verification. So long as we insist on the standards that I identified,—military significance, bal-

ance, equity, and verifiability—and put proposals on the table that would achieve those purposes, then I think whether there is or is not a result will depend entirely on whether there is a change in Soviet thinking and they begin to negotiate on that basis.

Mrs. BYRON. Given the fact that we have a new series of talks on the SDI level, the administration in the past has said that our nuclear deterrence probably has kept the peace over the last 40 years. If this is the case, many people are asking why do we need to proceed with our thrust toward SDI. Could you give us——

Mr. PERLE. I think one of the reasons is that over the last 15 years or so we have seen a steady, unrelenting Soviet buildup of offensive forces with no end in sight. Since the first arms control agreements were signed between us in this area in 1972, the Soviets have made massive additions to their offensive forces.

Since the talks got underway in 1969, they have added something like 8,000 strategic weapons to their arsenal. Now, in my view a continuing competition in offensive arms is destabilizing, and we would be well advised to devise alternatives. Moreover, I think the Soviets have very considerable advantages with respect to the deployment of offensive nuclear arms and missiles in particular. For example, they have many times the land area available for that purpose, than we have in the United States. In addition, there is no significant problem bearing on the interface between nuclear weapons and the Soviet public. They don't have to face H.R 3100 or similar pressures from within the Soviet Union. So for a variety of reasons, I hink they are well poised and have demonstrated an interest in availing themselves of the opportunity to continue to deploy improved offensive forces.

Now, the strength of the United States, it seems to me, lies not in attempting to match them in circumstances that are disadvantageous to us, but in looking for a combination of offensive and defensive forces that take full advantage of our technological potential. I can't for the life of me see why we should compete with the Soviets in an area where they are strong rather than competing with them in an area where we are strong. So I think a combination of offense and defense would bring far greater stability to the strategic balance between us and enable us to exploit our strengths and not compete in areas where we are weak.

Mrs. BYRON. Mr. Ray.

Mr. RAY. Thank you, Madam Chairman.

Welcome to the witnesses.

Have there been any real negotiations, in either one of your opinions, on INF or strategic weapons limitations during the first two rounds of talks?

Mr. PERLE. Not in my judgment. Efforts by our negotiators to draw the Soviets out, to accommodate their concerns, to demonstrate the flexibility that exists on our side, has gone unrequited. The Sovies have largely, for propaganda purposes, staked out positions that they know are totally unacceptable to the United States and to our allies, and they have not deviated from those proposals except occasionally repackage them.

Mr. RAY. Verification is the key to everything we want to accomplish. Have the negotiations proceeded to the point at this time

where we can get into verification or have we already gotten into that particular factor?

VERIFICATION NEGOTIATIONS

Mr. PERLE. We have let the Soviets know that we do not anticipate that the proposals we have put forward would be verifiable solely by national technical means of verification, and that is particularly true with respect to such systems as mobile missiles, whether of intermediate or strategic range. However, we have not yet begun the detailed discussion of the verification measures that will be necessary to give us reasonable confidence that we can detect what the Soviets were doing.

But I would like to point out that knowing what the Soviets are doing and detecting violations is only part of the problem. The other part is obtaining Soviet compliance. We are perfectly able to observe the Soviets doing a number of things that are in violation of existing agreements. However, these agreements are not self-enforcing; there is no mechanism by which the Soviets can be compelled to comply with them. For that reason, however we may be able to verify the terms and conditions of agreements we seek to negotiate, in my judgment, we should avoid agreements that are so structured that if the Soviets were to violate them, we would suffer a serious setback to our national security.

Mr. RAY. The Soviets are claiming that equity already exists and they, of course, would enjoy a freeze at this point, but how do they justify, or do they even comment on the fact that apparently they are already ready to deploy new mobile strategic and INF weapons. Have our negotiators gotten to the point of discussing this inequity and pointing it out and are they getting any reaction.

Mr. PERLE. The Soviets claim that a balance exists, particularly with respect to intermediate nuclear forces in Europe. What is almost comic about the claim is they have been making it for the last 5 years during which time they have deployed up to now 441 SS–20 medium-range ballistic missiles, each with three warheads and each with additional reload missiles.

They have added some thousands of warheads in a period in which the United States, until recently, had added none whatever. Yet, at every stage along the way, they claim that a balance exists. If it existed in 1979 when Brezhnev claimed that a balance existed, it surely did not exist 5 years later after the addition of 1,600 warheads on the Soviet side.

Mr. RAY. Gorbachev made a statement 2 or 3 weeks ago, that he would encourage and support a chemical weapons-free zone in Europe. That statement made the front pages of most papers and was prominent in the news. Our offer sometime before that to ban all chemical weapons, completely eliminate all weapons, barely made the news. How can we better focus the media attention on the offers we make, the interests that we have and project?

Do you know of any way that we can get better attention? Do we have a strategy that we are working on to get our views into the forefront?

Mr. PERLE. I wish I knew how we could do a better job with publicizing the proposals we have made because I think they will stand

up to close scrutiny. I wish we could command the kind of space and attention under similar circumstances in the pages of Time magazine, for example, that Mr. Gorbachev got. It was a really remarkable interview. Not a word critical of the Soviet Union was spoken; not a serious question was raised, in several hours of interview.

We answer the hard questions when they are asked, and we hope that our answers are reported because we think we have credible answers. We think that the proposal, to reduce significantly the strategic forces on both sides, to eliminate entirely intermediate missiles, and to ban completely chemical weapons with a system of challenge inspections, as well as the proposals to adopt additional verification measures affecting nuclear testing, and so forth, are all credible proposals and will stand close scrutiny.

The Soviets have one great advantage when it comes to propaganda and that is there need not be any relationship between what they say and what they do. As an open and democratic society with governmental authority divided between the executive and the legislature and the press, I might add we are not capable of mounting propaganda of that kind. Our actions have to conform to our policies.

Mr. RAY. Thank you.

Thank you, Madam Chairman.

Mrs. BYRON. Mr. Stratton.

Mr. STRATTON. Thank you, Madam Chairman.

Mr. Perle, the President last night in his press conference apparently surprised a large number of Americans, including a distinguished group of U.S. Senators who had recently visited the Soviet Union, when he announced that he didn't like the idea of trading off anything in the SDI in return for a reduction in offensive weapons on the part of the Soviet Union. I assume that the President took that position decision in line with your recommendations.

Is it fair to say that the real problem in that proposal is the same one that you have mentioned, namely verification? If that tradeoff is made and Mr. Gorbachev announces that they have eliminated 3,000 weapons, we have no way of knowing whether they have really eliminated them. Is that basically the rationale behind the President's proposal?

VERIFICATION PROBLEMS

Mr. PERLE. Well, I believe that there are serious verification problems with many of the proposals, which have only been sketched out by the Soviets. They claim they would be prepared to reduce their offensive forces if we would be prepared to limit our SDI program. However, some of the verification problems, in my judgment, are insurmountable. Again, obtaining compliance even with provisions that could be verified is not easy. But it seems to me the principal defect of this idea or a tradeoff is that there already exists a treaty, the ABM Treaty, with which we are abiding, that prohibits the deployment of strategic defenses beyond very limited defenses at a single location.

What the Soviets are seeking to do is bring a halt to the American program of research and development to see whether new tech-

nologies will put us in a position to develop a cost-effective strategic defense. We simply don't know how to verify limitations on research and development of the kind that we believe the Soviets have in mind.

Moreover, the Soviets have a vigorous program of research and development on strategic defenses, a program larger than our own and one that goes back further. I frankly don't believe that, if the Soviets entered into an agreement restricting research and development, we could count on them to abide by those undertakings. This strikes me, Mr. Stratton, as one of those areas where the Soviet capacity to cheat, viewed in light of their history of past cheating, strongly suggests that the risk would be very great. It is one of those areas where a little bit of cheating would go a very long way, where a clandestine Soviet development program could put them in a position to deploy a strategic defense and leave us in a very difficult situation.

So I would strongly counsel against accepting the risks involved in limitations on research and development. The President did say last night that he would be prepared to discuss at the appropriate time limitations on the deployment of such systems which are verifiable.

Mr. STRATTON. Considering the prestigous number of Senators that were involved in that meeting, I am surprised that they didn't figure that out for themselves. They seemed to come back with a great deal of enthusiasm: This is the real thing; we've got to do it this way. I think there have been several editorials in the Washington Post and the New York Times suggesting that Mr. Gorbachev has made a great proposal, and I am surprised that the members of the other body, many of them who are members of the Senate Armed Services Committee, seem to be taken in by that suggestion.

Mr. PERLE. Well, I was surprised by the enthusiasm because when one looked carefully at what the Soviet leaders have been saying, it was not at all clear that the reductions would be significant; that is, reductions of the sort that would obviate the requirement for a defense because they would so diminish the threat we would face that we could comfortably maintain a balance without defenses. It was not clear what the Soviets had in mind in terms of curtailments on strategic defensive research. Nor was there reason to believe that when we actually got into negotiations, these vague Soviet suggestions would translate into a fair, balanced, treaty.

Nothing about our negotiating experience suggests that we could look forward to that.

Mr. STRATTON. Thank you.

Mrs. BYRON. Mrs. Holt.

Mrs. HOLT. Thank you, Madam Chairman.

I have no questions. I apologize for coming late. I have read your statements and thank you very much for your very candid and lucid statements. I have served on this committee for 13 years and been struggling with ostriches around here to try to get them to let us carry on with our testing and modernization so that we could continue to keep the peace and it is gratifying to me, and I thank you gentlemen for the jobs that you do.

We have worked with Dr. Wagner for a long time. Dr. Perle, we appreciate what you do. You make our job easier when you give us such a candid and factual statement. Thank you very much.

Mrs. BYRON. I have a couple of questions for Dr. Wagner.

Why would a comprehensive test ban hurt our ability to maintain an effective nuclear arsenal more than it would the Soviets? Wouldn't it hinder them also?

COMPREHENSIVE TEST BAN EFFECT ON NUCLEAR ARSENAL

Dr. WAGNER. Madam Chairman, I don't believe such a ban would hinder the Soviets as much as it would hinder us. I believe we depend much more on technology because of the constraints of our society and our strategic objectives and because of the way we have developed the delivery systems that carry the warheads in contrast with the way the Soviets have developed theirs. Thus, even if verified and complied with, a comprehensive test ban would be to the net advantage of the Soviet Union.

Mrs. BYRON. I understood that our nuclear testing has permitted us to reduce the total number of megatons on the stockpiles since the early sixties and yet the number of warheads really hasn't decreased, has it?

Dr. WAGNER. The number of warheads has actually come down also since that period of time, perhaps 20 percent or so, and both of those changes—the reduction in the necessary yield and the ability to provide deterrence with fewer warheads—derive in large part from the advances achieved by nuclear testing reflected in the warhead designs.

Mrs. BYRON. Well, looking at one other aspect of where we are going with the test ban, and that is the people problem, do you feel that the fact that we have such an outstanding group of young scientists working in this field, doesn't the fact that you are working on a project and then all of a sudden you come up to the timeframe when you need to move forward with a test, doesn't that have detrimental effects on our ability to really retain what our experiences are?

I think there were indications that during the 1958-61 moratorium that we lost some extremely talented people in our programs.

Dr. WAGNER. That was, in fact, the case during the moratorium and I am sure it would be the case again. A really good scientist, the kind we have to have working in these programs, derives his satisfaction from the challenge of comparing his understanding——

Mrs. BYRON. You mean it is not the salary?

Dr. WAGNER [continuing]. Against nature, and the inability to test would take that challenge and that stimulus away from those good people at the laboratories, and they would leave, there is no question about that.

Mr. PERLE. This is another one of the many asymmetries with the Soviet Union. The Soviets would simply instruct their scientists and engineers to stand by if necessary for however long it takes. Andrei Sakahrov has indicated that he was called in and told he would work on the hydrogen bomb, which he did; he didn't have any choice in the matter.

We obviously cannot dictate to our citizens. This bears on SDI as well, and I believe it is one of the reasons why the President is so clear about his unwillingness to compromise SDI research and development. When you ask the scientists and engineers—on whom the success of a program like SDI depends—to invest their time and energy and talent and to dedicate their careers to such a project, they are entitled to some reasonable confidence that the rug is not going to be pulled out from under them in midstream. They should have some confidence that those years of toil in the laboratories will not go down the drain because some abrupt political decision has been made to reverse field and abandon that project.

The same applies to industry which has to decide how deeply to involve itself in Government programs. If programs are ephemeral, then the commitment of corporate resources will inevitably produce losses and failure. So it is important to demonstrate a delicate thing in a sense that a program like the SDI or nuclear testing program is going to be supported by the Government consistently, because it is important to the Nation and is vital to the success of those programs. To trifle with that climate of confidence about the programs would do great damage even if no negotiation ever was consummated.

Mrs. BYRON. Mr. Badham, do you have any questions?

Mr. BADHAM. No.

Mrs. BYRON. Mr. Ray. Mr. Stratton.

I want to thank you gentlemen very much for your testimony today. It has been once again outstanding and extremely helpful to us in trying to wade through the multitude of problems in this area and give us a better understanding of many of the difficulties we are dealing with.

Thank you again.

Secretary Hoover.

STATEMENT OF HON. WILLIAM W. HOOVER, ASSISTANT SECRETARY FOR DEFENSE PROGRAMS, DEPARTMENT OF ENERGY, ACCOMPANIED BY HON. RICHARD L. WAGNER, ASSISTANT TO THE SECRETARY OF DEFENSE FOR ATOMIC ENERGY

Dr. WAGNER. Madam Chairman, General Hoover has invited me to stay at the table. With your permission, I will——

Mrs. BYRON. I didn't know what your timeframes were.

Dr. WAGNER. With me this morning from the Department of Defense is Mr. Ralph W. Alewine who is prepared to address in considerable detail based on his expertise the issues related to the verification of test bans by seismic means, if you have questions in that area.

Mrs. BYRON. Does he want to proceed to the table now?

Mr. HOOVER. With your permission, I would like to submit my prepared statement for the record and briefly summarize. I believe a number of the points in my prepared statement have been covered by my colleagues and in the questions and answers.

It is a pleasure to appear before this committee and I think the task of this hearing, to draw out some of the reasons that might

underlie why we should have reservations about a nuclear test ban, is certainly meritorious on your part.

DOE RESPONSIBILITY

As you know, the DOE has the statutory responsibility for research, development, testing, and production of nuclear weapons. As Assistant Secretary for Defense Programs, I have those weapons programs under my jurisdiction.

We are all keenly aware of the heavy responsibility that accompanies these tasks which entail development of the most destructive weapons that mankind has devised. It should go without saying that no serious or even sane person would consider using these weapons to start a war.

In the 40 years of their existence, they have been used only to end a war. Their fundamental purpose is to keep the peace. It is in that context that we address the question of a nuclear test ban: Would it serve the cause of world peace?

Those of us in the Department of Energy who have studied this problem for many years have serious reservations about whether a nuclear test ban would serve that cause. We are concernod that by casting doubt on the reliability and effectiveness of our nuclear deterrent, a test ban could make war more likely rather than less.

First, a comprehensive test ban would prevent the modernization of our nuclear weapons force and the study of potential future weapons.

Second, it would limit our ability to certify and maintain the reliability of the weapons currently in our nuclear stockpile.

Third, it would have asymmetrical effects on the United States and the Soviet Union, the result of which would be a weakening of this country's military position.

And fourth, it could have an adverse, rather than beneficial, impact on some important arms control problems.

Dr. Wagner testified to some of the importance we place on modernizing our warheads. Certainly paramount in that modernization is that we know how today to build warheads in a safer, more tamper-proof mode than some of the older warheads. Even in the existing warheads, we need to be able to conduct nuclear tests if we are to maintain the confidence in their continuing reliability.

A nuclear warhead contains much chemically reactive material and is subject to the effects of aging and corrosion. I would commend to your reading a document entitled "Some Little Publicized Difficulties With a Nuclear Freeze," by Jack Rosengren, which documents in an unclassified manner some problems that we have had with warhead development in our weapon stockpile in the past, and where without nuclear testing we would have much less confidence in the reliability of our deterrent force.

Proponents of a nuclear test ban or freeze commonly preface their proposals with the words "mutual and verifiable." In reality, the nuclear test ban we believe would be neither mutual nor fully verifiable.

Most experts would agree that a test of 40 or 50 kilotons could almost certainly be detected, but it is equally certain that tests below 1 kiloton could be successfully hidden.

In any event, it is certain that some small tests and probably an occasional big one could be conducted covertly. Thus, the other side could continue to conduct low-yield nuclear experiments. They could test some new design theories. They might be able to test the primary or "trigger" stages of new weapons. Today, such tests might have only marginal importance; but they would be of great significance to the Soviet program during a period when the United States was doing no testing whatsoever.

TEST BAN RESTRICTS R&D

My final point about a nuclear test ban has to do with our whole approach to the subject of arms control. A test ban restricts research and development; it does not control the level of armaments. In virtually all other areas of arms control negotiation, we have taken the position that arms control should not control research and development.

We know that testing is an integral part, an essential part of our nuclear research and development program. We do not believe that controlling or restricting that process is a reasonable way to proceed toward arms control. It would do nothing whatsoever to reduce the number of nuclear weapons deployed in the world.

In summary, we believe that adoption of House Joint Resolution 3 or H.R. 3100 would pose serious dangers to the United States. Specifically, a nuclear test ban would place the effectiveness of our nuclear deterrent at risk without symmetrically affecting that of the other side. We believe it represents poor arms control, in that it provides no reduction in the sizes of the two nuclear arsenals. While we realize that it is seen by many as an important symbol of arms control, we do not see that it has any value beyond symbolism.

We do NOT believe we need to be apologetic about what is in reality one of the great success stories of human history: The successful deterrence of major war, through nuclear weapons, for 40 years. Nuclear testing has played an important role in that historical event and should not be prohibited for the sake of ineffective symbolism.

Thank you.

Mrs. BYRON. Thank you very much.

PREPARED STATEMENT OF HON. WILLIAM W. HOOVER

Representative Byron, members of the panel, distinguished guests: I sincerely appreciate the opportunity to present the views of the Department of Energy on a nuclear test ban. As you know, the Department of Energy has the statutory responsibility for research, development, testing, and production of nuclear weapons. As Assistant Secretary for Defense Programs, I have those weapons programs under my jurisdiction. This includes funding and programmatic oversight for the Livermore, Los Alamos, and Sandia National Laboratories and the Nevada Nuclear Test Site. We are all keenly aware of the heavy responsibility that accompanies these tasks, which entail the developments of the most destructive weapons ever devised by mankind, and yet weapons that are utterly essential in today's world for the preservation of peace. It should go without saying that no serious or even sane person would consider using these weapons to start a war. Their fundamental purposes today is to keep the peace. It is in that context that we address the question of a nuclear test ban: would it serve the cause of world peace?

Those of us in the Department of Energy, who have studied this problem for many years, have serious reservations about whether a nuclear test ban would serve

that cause. We are concerned that a test ban could greatly limit our ability to respond to varying military challenges. We are concerned that, by casting doubt on the reliability and effectiveness of our nuclear deterrent, a test ban could make world war more likely rather than less. And we are concerned that a test ban would have the effect of weakening this country with respect to others who might not share our own desires for a free and peaceful world. To amplify on these concerns, let me address four specific points. First, a comprehensive test ban would prevent the modernization of our nuclear weapons force and the study of potential future weapons. Second, it would limit our ability to certify and maintain the reliability of the weapons currently in our nuclear stockpile. Third, it would have asymmetrical effects on the United States and the Soviet Union, the result of which would be a weakening of this country's military position. And fourth, it could have an adverse rather than beneficial impact on some important problems of arms control.

First of all, why do we conduct nuclear tests? We have several objectives. To modernize or modify nuclear explosives for new weapon systems, to make weapons safer, lighter, more tamper-proof, and more sparing in the use of nuclear materials, to investigate nuclear explosion effects on military systems and communications, and to better understand the physical phenomena of nuclear explosions. I am well aware that many proponents of a test ban do not see these as desirable objectives. On the contrary, they see our objective of a test ban as being the prevention of new weapons development. This, I think, is an emotionally attractive argument, but one that ignores what we have learned from the past 40 years of world history. During that period, nuclear deterrence has been a success story virtually without historical precedent—deterring not merely nuclear attack, but any aggression by one nuclear power against another. In Europe particularly, the nuclear deterrent has brought the longest period of peace in the history of Western civilization. During that time, the shape of nuclear deterrence has changed in response to technological developments and in response to the threats from others. We have developed nuclear weapons of differing size and character depending on the needs of the time. Back in the 1950s, modernization of the arsenal generally meant bigger bombs. By 1960, the total destructive potential in our arsenal was actually four times as great as it is today. Those huge weapons were needed to deter war in conjunction with the delivery systems of the day. During the 1960s, smaller missile systems such as the Minuteman, Polaris, and Poseidon demanded smaller and more efficient warheads. Today, the military requirements for attacking hardened targets have led to the development of new, extremely accurate missiles with their own unique constraints on warhead size and shape. Meanwhile, the need for warheads in other applications, such as air defense, has risen and fallen over the years. It would be most naive of us to assume that the military needs of 1991 are going to be the same as those of 1961. Discarding our capability to meet those needs would not serve the cause of peace. We should also be aware that modernization does not affect only weapon effectiveness; it also affects safety. Modern weapons incorporate explosive materials that are less susceptible to accidental detonation, they permit reduced radiation levels for nearby personnel, and they incorporate safeguards to prevent any accidental or unauthorized use. All these improvements require new weapon designs, and these designs must be tested. Testing is an essential safeguard—and part of the research and development process.

My second point is that even in the case of existing weapons, we need to be able to conduct nuclear tests if we are to maintain confidence in the continuing reliability of those weapons. A nuclear weapon contains such chemically reactive materials, and is subject to the effects of aging and corrosion just as any other structure. In the history of our nuclear weapons program, we have discovered many cases in which weapons could have failed as a result of such problems. It is certain that a test ban would exacerbate the situation; we know this as a result of our last experience with an extended moratorium in 1958–61. Certain warheads introduced during that moratorium were subsequently found, after the resumption of testing, to have fundamental design flaws. They would not have worked. We have distributed some reading materials to the panel that document the history of our experience with these reliability problems. Now it is true that in many cases problems can be discovered and apparently resolved by non-nuclear inspections and tests. In other cases, though, remedial actions involving the nuclear components themselves can be confirmed only through nuclear testing. Contrary to what has sometimes been suggested, rebuilding warheads according to design specifications from several years in the past is generally not feasible—for example, because of unavailability of materials or manufacturing facilities. Likewise, the individuals who originally designed and built a weapon are likely to be unavailable when it comes time for reconstruction years later. Finally, there is an inevitable problem of human nature when technology